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Finding of no significant impact on the environmental assessment for STPS 278-1(9)30 Carroll Hill -

FINDING OF NO SIGNIFICANT IMPACT ON THE ENVIRONMENTAL ASSESSMENT

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FOR
STPS 278-1(9)30
CARROLL HILL - EAST & WEST
CONTROL NO. 2580

BEAVERHEAD COUNTY, MONTANA

AND

STATE OF MONTANA, DEPARTMENT OF TRANSPORTATION

AND

U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION

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FINDING OF NO SIGNIFICANT IMPACT
FOR

STPS 278-1(9)30
CARROLL HILL - EAST & WEST
BEAVERHEAD COUNTY, MONTANA
CONTROL NO. 2580

THE FEDERAL HIGHWAY ADMINISTRATION HAS DETERMINED THAT THIS PROJECT WILL NOT HAVE ANY SIGNIFICANT IMPACT ON THE HUMAN ENVIRONMENT. THIS FINDING OF NO SIGNIFICANT IMPACT IS BASED ON THE ATTACHED ENVIRONMENTAL ASSESSMENT AND INPUT FROM THE PUBLIC SCOPING PROCESS. THIS FINDING HAS BEEN INDEPENDENTLY EVALUATED BY THE FEDERAL HIGHWAY ADMINISTRATION AND DETERMINED TO ADEQUATELY AND ACCURATELY DISCUSS THE NEED, ENVIRONMENTAL ISSUES, AND IMPACTS OF THE PROPOSED PROJECT AND APPROPRIATE MITIGATION MEASURES. IT PROVIDES SUFFICIENT EVIDENCE AND ANALYSIS FOR DETERMINING THAT AN ENVIRONMENTAL IMPACT STATEMENT IS NOT REQUIRED. THE FHWA TAKES FULL RESPONSIBILITY FOR THE ACCURACY, SCOPE AND CONTENT OF THE ATTACHED ENVIRONMENTAL ASSESSMENT.

Federal Highway Administration

8-25-97
Date

SUMMARY OF ACTION
ON THE
STPS 278-1(9)30
CARROLL HILL - EAST & WEST
BEAVERHEAD COUNTY, MONTANA
CONTROL NO. 2580

ENVIRONMENTAL ASSESSMENT

The **Environmental Assessment** (EA) for this proposed project was approved for distribution by the Federal Highway Administration on 02 April 1997. A Public Notice was issued which:

- Notified the public that copies of the EA are available for distribution and gave instructions on how to view or obtain a copy,
- Solicited comments on the EA and the proposed project, and
- Offered an opportunity for a public hearing.

The Public Notice (a copy is included on the following page) was published in the Dillon Tribune on 21 May 1997. No public comments or requests for a public hearing were received through the date specified in the Public Notice (27 June 1997).

Copies of the EA were distributed to all individuals and agencies on the Distribution List included in the EA.

A Finding of No Significant Impact (FONSI) has been issued by the Federal Highway Administration and is attached, preceding this sheet.

Additional copies of the EA may be obtained from Brad Peterson, Project Manager, Morrison-Maierle, Inc., Box 6147, Helena, MT 59602, E-Mail bpeterson@m-m.net.

PUBLIC NOTICE

Beaverhead County, in cooperation with the Montana Department of Transportation, has completed the environmental assessment (EA) for the project designated: Carroll Hill - East & West, Project Number STPS 278-1(13)30.

The proposed project will include the reconstruction of a 4.8 mile long section of Montana Secondary Highway 278 in Beaverhead County between Dillon and the Jackson/Wisdom area. The project will begin near the Carroll Ranch home near Milepost 34.9 and will extend east over Big Hole Pass to approximately Milepost 30.1 which is approximately 0.6 miles west of the Circle S Ranch entrance road. The proposed project is located in Sections 1, 11 and 12 of Township 6 South, Range 14 West and in Sections 6, 7, 8 and 9 of Township 6 South, Range 13 West. The proposed project will generally follow the existing alignment.

Because portions of the proposed project pass through Forest System land, the EA has been coordinated with the USDA-Forest Service, Beaverhead-Deerlodge National Forest, Dillon Ranger District.

Copies of the EA are available for review at several locations including:

- Beaverhead County Road Department, 2 South Pacific Street, Dillon, MT
- Morrison-Maierle, Inc., 910 Helena Avenue, Helena, MT
- Montana Department of Transportation District Office, Butte, MT
- USDA-Forest Service, Beaverhead-Deerlodge National Forest, Dillon Ranger District, Dillon, MT

Beaverhead County solicits your comments and offers an opportunity for a public hearing on the proposed project.

For your own copy of the EA, to provide written comments, to ask questions, or to request a public hearing, contact Brad Peterson, Project Manager, Morrison-Maierle, Inc., Box 6147, Helena, MT 59602, E-Mail bpeterson@m-m.net, by 27 June 1997.

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Project No. STPS 278-1(9)30, Control No. 2580

CARROLL HILL - EAST AND WEST
BEAVERHEAD COUNTY, MONTANA

ENVIRONMENTAL ASSESSMENT

This document is prepared in conformance with MEPA requirements and contains the information required for an environmental assessment under the provisions of ARM 18.2.237(2) and 18.2.239. It is also prepared in conformance with NEPA requirements for an environmental assessment under 23 CFR 771.119 and 40 CFR 1500 to 1508.

Submitted pursuant to 42 U.S.C. 4332(2)(c) by:

U.S. Department of Transportation, Federal Highway Administration

and

State of Montana, Division of Highways, Department of Transportation

Submitted by:

March 28, 1997
Date

for Montana Department of Transportation

Reviewed and Approved for Distribution:

02 April 97
Date

for Federal Highway Administration

The following persons may be contacted for additional information concerning this document:

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Helena, MT 59620-1001

Janice Brown, Administrator
Region #8, Montana Division
Federal Highway Administration
301 South Park, Drawer 10056
Helena, MT 59626-0056

TABLE OF CONTENTS

1. DESCRIPTION OF THE PROPOSED ACTION 1-1

2. PURPOSE AND NEED 2-1
    2.1. EXISTING ROADWAY COMPARED WITH PROPOSED ROADWAY 2-1
        2.1.1. Existing Roadway Design 2-1
        2.1.2. Proposed Roadway Design 2-2
    2.2. TRAFFIC AND SAFETY 2-4
    2.3. PEDESTRIANS, BICYCLISTS, CATTLE DRIVES AND SNOWMOBILES 2-5
    2.4. RELATED PROJECTS 2-6

3. ALTERNATIVES UNDER CONSIDERATION 3-1
    3.1. THE NO-ACTION ALTERNATIVE 3-1
    3.2. CONSTRUCT THE ROADWAY NEAR ITS CURRENT ALIGNMENT 3-1
    3.3. ALTERNATIVES PREVIOUSLY EVALUATED BUT DROPPED FROM CONSIDERATION 3-1
    3.4. THE PREFERRED ALTERNATIVE 3-2

4. AFFECTED ENVIRONMENT AND IMPACTS 4-1
    4.1. SOCIAL AND ECONOMIC 4-1
    4.2. VISUAL 4-2
    4.3. LAND USE 4-3
    4.4. AGRICULTURAL LANDS 4-3
    4.5. IRRIGATION 4-4
    4.6. RIGHT-OF-WAY 4-4
    4.7. RELOCATIONS 4-4
    4.8. NOISE 4-4
    4.9. AIR QUALITY 4-5
    4.10. WATER QUALITY 4-5
        4.10.1. Floodplains 4-5
        4.10.2. Wells/Septic Systems 4-6
        4.10.3. Erosion and Water Quality 4-6
    4.11. WETLANDS 4-6
    4.12. FISH, WILDLIFE AND PLANTS 4-10
        4.12.1. Fisheries 4-10
        4.12.2. Wildlife 4-11
        4.12.3. Vegetation 4-16
    4.13. THREATENED OR ENDANGERED SPECIES 4-17
    4.14. CULTURAL RESOURCES 4-20
    4.15. HAZARDOUS WASTE 4-20
    4.16. CONSTRUCTION 4-20
    4.17. ENERGY AND COMMITMENT OF RESOURCES 4-22
    4.18. ENVIRONMENTAL JUSTICE 4-23
    4.19. PERMITS 4-23
    4.20. SECONDARY AND CUMULATIVE IMPACTS 4-23

TABLE OF CONTENTS (CONT'D)

5. COMMENTS AND COORDINATION 5-1
    5.1. PERMITS, LICENSES AND OTHER AUTHORIZATIONS REQUIRED 5-2

6. LIST OF PREPARERS 6-1

APPENDIX A - WETLAND LOCATIONS

APPENDIX B - PUBLIC AND AGENCY COMMENTS RECEIVED

APPENDIX C - PUBLIC SCOPING MEETING SUMMARY

LIST OF FIGURES

Figure 1, Project Location Map 1-2
Figure 2, Typical Roadway Section 2-3
Figure 3, Project Photo Map . . . . **

LIST OF TABLES

Table 1, Wetlands Affected by the Proposed Project 4-8
Table 2, Wildlife Species of Concern -- Dillon Ranger District 4-12
Table 3, USFS Sensitive Species for which no Impacts are Anticipated 4-14
Table 4, Effects on Northern Goshawk and Elk 4-15
Table 5, Effects Summary for Threatened and Endangered Species 4-18

**Located inside back cover of this document.

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Helena, MT 59620

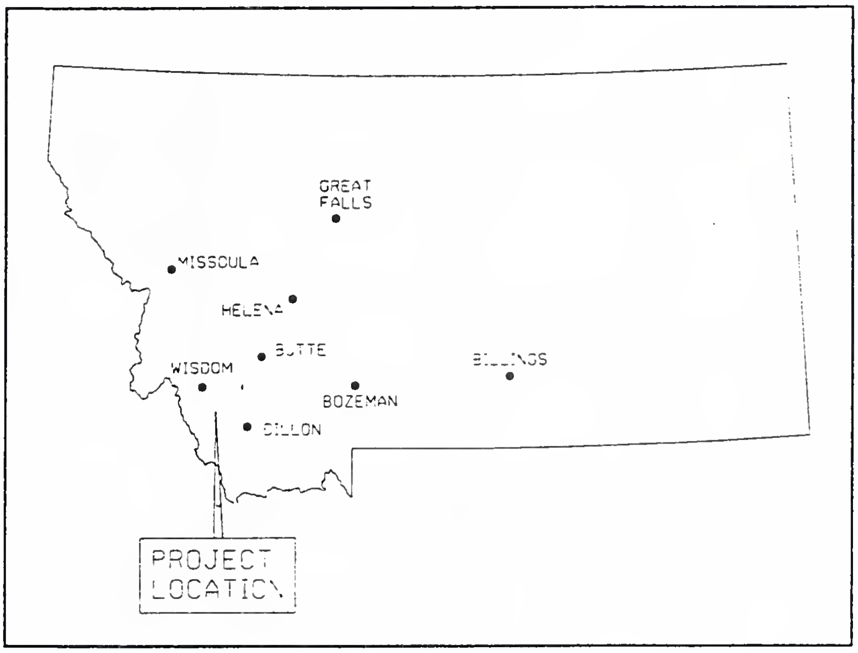
Beaverhead County Commission
2 South Pacific Avenue
Dillon, MT 59725-2799

Dillon Ranger District
USDA-Forest Service, Beaverhead-Deerlodge National Forest
420 Barrett Street
Dillon, MT 59725

Forest Supervisor
USDA-Forest Service, Beaverhead-Deerlodge National Forest
420 Barrett Street
Dillon, MT 59725

1. DESCRIPTION OF THE PROPOSED ACTION

The proposed project will include the reconstruction of an 7.8 kilometer (4.8 mile) long section of Montana Secondary Highway 278 in Beaverhead County between Dillon and the Jackson/Wisdom area as shown on the map on this page. As shown on the project location map on the following page and on the attached aerial photo ("translite"), the proposed project begins at Station 50+40 near the Carroll Ranch home near Kilometer 56.2 (Milepost 34.9) and extends east over Big Hole Pass to Station 128+77 approximately 1 kilometer (0.6 miles) west of the Circle S Ranch entrance road at approximately Kilometer 48.4 (Milepost 30.1). The proposed project is located in Sections 1, 11 and 12 of Township 6 South, Range 14 West and in Sections 6, 7, 8 and 9 of Township 6 South, Range 13 West. The proposed project will generally follow the existing alignment.



The roadway is classified as a rural major collector road.

The proposed project is in rolling terrain and an 80 kph (50 mph) design speed will be used.

The proposed project will include the acquisition of right-of-way and construction of related drainage structures, erosion control, re-topsoiling, seeding, signing, striping, utility relocations and other features.

The proposed project will also include the construction of chain-up areas on each side of Big Hole Pass and a snowmobile parking area near the top of the pass.

No access control is proposed along this project. Existing access will be perpetuated where necessary. Existing intersections and approaches will be improved to provide intersection angles near perpendicular with the highway. Grades of the approaches will also be improved. Mailbox turnouts will be constructed where appropriate.

The segments of the existing roadway that will be abandoned between Stations 92+00 and 109+60 will be obliterated, regraded and reseeded. The old, pre-1960's roadway that remains in this same area will also be regraded and reseeded except where vegetation has already reestablished, where wetlands or sensitive plants exist or where regrading would cause a greater impact than leaving the road as-is.

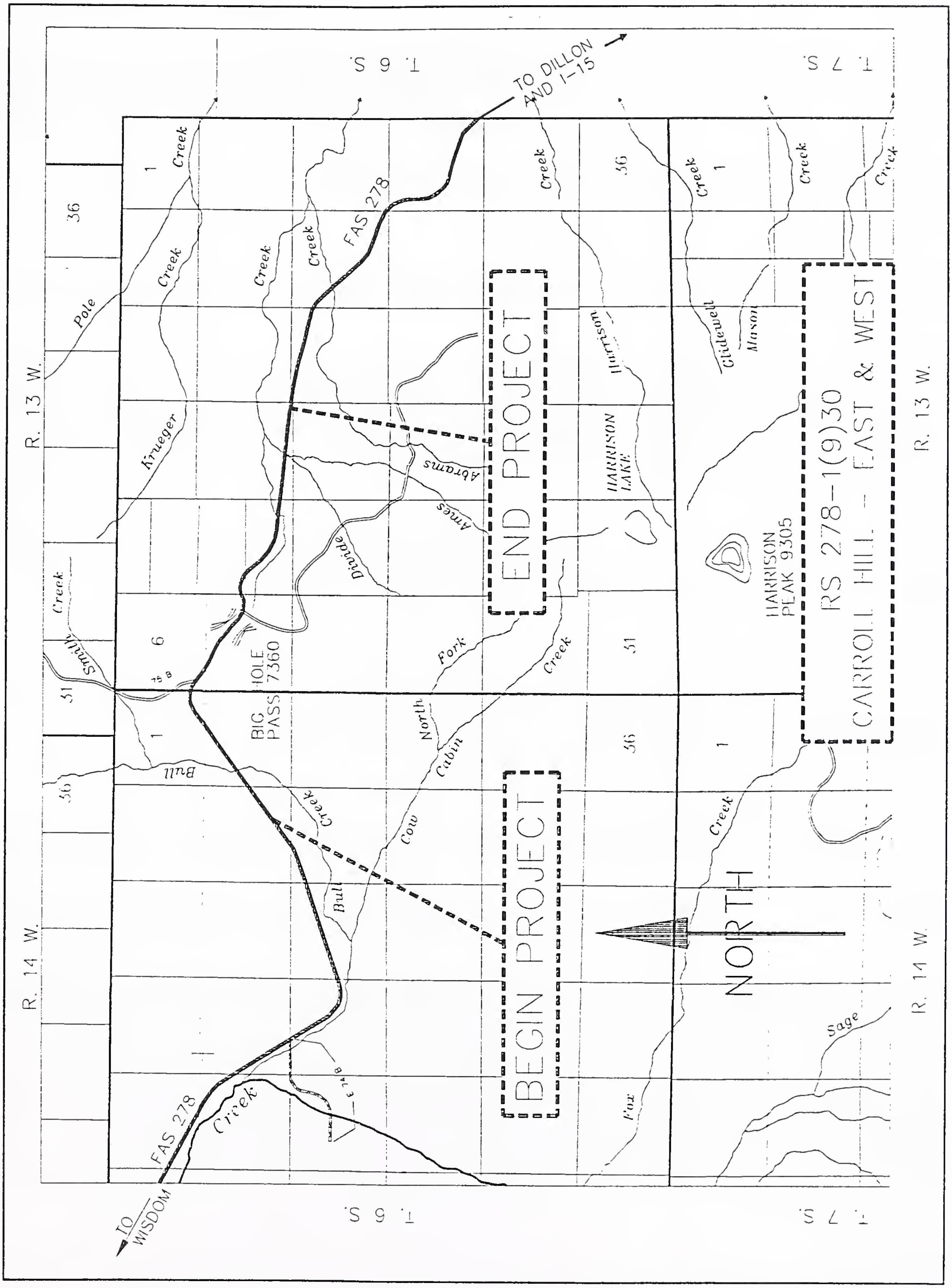


Figure 1, Project Location Map

2. PURPOSE AND NEED

The proposed project is intended to improve safety and driving convenience on the existing highway by improving the existing alignment over the pass; providing a more stable pavement; and improving excavation and embankment slopes.

2.1. EXISTING ROADWAY COMPARED WITH PROPOSED ROADWAY

2.1.1. Existing Roadway Design

The existing roadway was constructed in the 1960's and has an asphalt paved surface that is 8.4 meters (28 feet) wide.

Approximately 45% of the existing pavement exhibits alligator cracking. Nearly 100% of the project has transverse cracks and approximately 40% of the project has longitudinal cracks.[1] The character and extent of cracking indicates that existing gravel base courses and subgrade are not adequate and reconstruction, as opposed to maintenance strategies, is the most cost effective solution.

Grades on the existing roadway are summarized as follows:

- 0.07% - Station 50+40 (Begin Project) to 65+00 (western base of Big Hole Pass).
- 6.00% to 7.044% - Station 65+00 to 91+80 (top of Big Hole Pass).
- 6.289% to 7.00% - Station 91+80 to 112+00 (eastern base of Big Hole Pass).
- 2.771% to 6.169% - Station 112+00 to 128+77 (End Project).

All vertical curves on the existing roadway exceed the 80 kph (50 mph) design speed.

There are no horizontal curves on the existing roadway with radii of less than the 230 meters (755 feet) required for a design speed 80 kph (50 mph).

Although all existing horizontal curves meet requirements for 80 kph (50 mph) design speeds, from Station 92+50 to 110+00, a series of three consecutive curves exist that cause problems for truck traffic on slick roads. These curves have radii of 437 to 499 meters (1437 to 1637 feet), have 8% superelevation and occur on a grade of 7.00% on the east side of Big Hole Pass. Problems commonly occur with westbound trucks climbing the grade on snow-covered or icy roads. Westbound trucks entering the curves are traveling at reduced speeds because of the steep grades. With the 8% superelevation on the curves, the trucks slide sideways, off the roadway.

---

[1] Kent L. Shepherd, Supervisor, Non-Destructive Testing Area, Montana Department of Transportation, Memorandum to Jason Giard, P.E., Butte District Administrator, dated 19 July 1995.

2.1.2. Proposed Roadway Design

Horizontal Alignment

The proposed project alignment will follow the existing horizontal alignment with the following proposed adjustment:

- It is proposed that the three consecutive curves between Station 92+50 to 110+00 be replaced with three flatter curves with radii of 1250 meters (4,100 feet). This will allow reduction of superelevation to 3% (using an 80 kph (50 mph) design speed) which will improve operation of trucks on the steep grades on slick roads.

Vertical Alignment

It is proposed that the vertical alignment closely follow the existing with minor adjustments to help balance earthwork and to adjust existing steep grades to be no more than 7.00% in accordance with standards for rolling terrain.

It has been determined that truck climbing lanes are not warranted on either side of Big Hole Pass.

Typical Roadway Section

It is proposed that the new roadway be 8.4 meters (28 feet) wide -- two 3.6 meter (12 feet) wide driving lanes with 0.6 meter (2 feet) wide shoulders as shown on Figure 2.

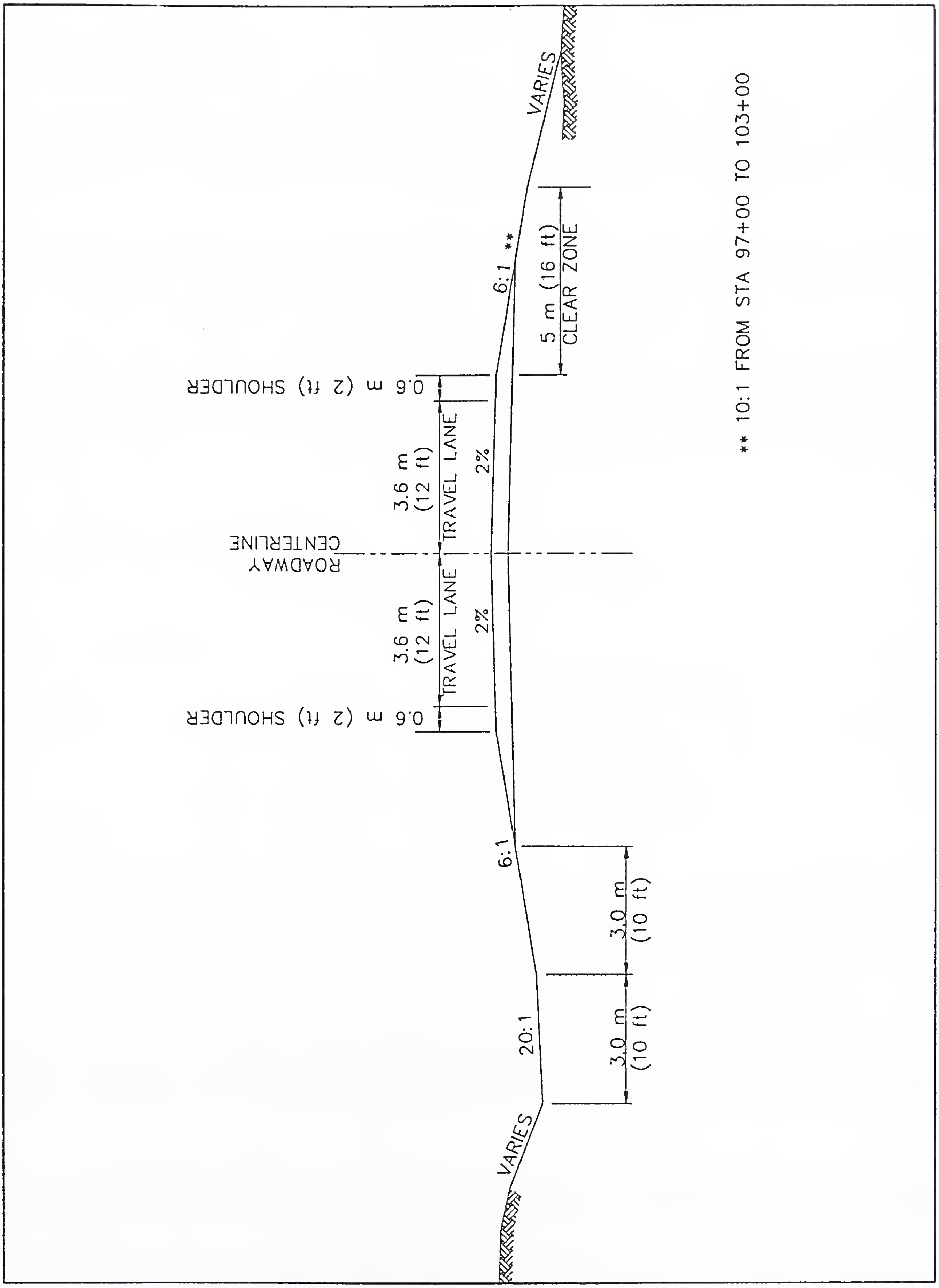
Surfacing inslopes and subgrade inslopes are proposed to be 6 horizontal to 1 vertical (6H:1V) and a 3 meter wide (10 feet) ditch with a 20H:1V bottom is planned in cut sections.

In the area of the high fills between 97+00 and 103+00, a 10H:1V inslope is proposed as shown on Figure 2.

Fill slopes for the new roadway are proposed to be 2H:1V or flatter. Cut slopes are proposed to be 1.5H:1V or flatter.

Beaverhead County has indicated a need to accommodate the large cattle drives that occur along this roadway in the spring and fall. Cattle walk along the roadway and along the shoulders and inslopes of the roadway. The County has also indicated opposition to guardrail because it causes substantial conflicts with the cattle drives and because it makes snow removal difficult.

To address these situations, and as shown on Figure 2, it is proposed that the 6H:1V inslopes be extended to provide a clear zone 5.0 meters (16 feet) from the edge of traveled way to the top of fill slope. This will provide adequate space for cattle drives -- cattle can travel along the shoulder and inslopes while allowing vehicular traffic to use the roadway. In addition, because the required clear zone for this roadway is approximately 3.0 to 3.6 meters (10 to 12 feet), guardrail should not be required.



** 10:1 FROM STA 97+00 TO 103+00

Figure 2, Typical Roadway Section

Snowmobile Parking Area

An approximately 200 meter (650 feet) long by 12 meter (40 feet) wide paved snowmobile parking area is proposed, as part of this project, near the top of Big Hole Pass on right-of-way left over from the existing roadway to be abandoned near the USFS[2] access road at Station 92+14.

This parking area will be used by snowmobilers, skiers and other winter recreationists. It will also be used for parking for summer activities. This is a potential site for placement of an existing historic interpretive sign that is currently in the possession of USFS.

At this site, snowmobiles cross the highway and travel east and west between the edge of pavement and the right-of-way. The proposed 3 meter (10 feet) wide ditch can also serve as a trail for snowmobiles to use while traveling to the east and also to the west between the Bull Creek Road (Station 76+84) and the USFS access road (Station 92+14) on the left side of the highway.

2.2. TRAFFIC AND SAFETY

Existing and projected traffic volumes are summarized as follows:

TRAFFIC VOLUMES

1996 ADT	=	440	Present Average Daily Traffic
2018 ADT	=	710	Design Year Traffic
DHV	=	100	Design Hourly Volume
D	=	55-45%	Directional Distribution
T	=	11.7%	Trucks, Medium and Heavy
All Trucks	=	60.5%	All Trucks

These existing and project traffic volumes and characteristics were measured and estimated by the Montana Department of Transportation as part of their on-going traffic counting program. Projections are based on past growth rates and, where available, estimated social and economic growth factors for the state, region, county and locality.

As a comparison, 1995 ADT for the Wise River to Polaris Road (see Section 2.4.) ranges from 175 near the north end of the project to 268 vehicles per day at the south end near Montana Secondary Highway 278. Year 2020 ADT ranges from 512 to 785 vehicles per day at the same locations.[3]

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[2] Throughout this document, USFS means USDA-Forest Service, Beaverhead-Deerlodge National Forest, Dillon Ranger District.

[3] U.S. Department of Transportation, Federal Highway Administration, Western Federal Lands Highway Division, Environmental Assessment, Pioneer Mountains Scenic Byway, Montana Forest Highway 73 (Wise Rive -

ACCIDENTS

There were six investigated accidents on the roadway in the area of the proposed project during the 10 year period including 1985 through 1994. Five of these accidents occurred between Station 84+00 and 100+00 (the area over Big Hole Pass). These accidents included two fatal accidents with a total of three fatalities and two injury accidents with a total of three persons injured. Five of the six accidents involved vehicles running off the road with four of these accidents involving a collision with a fixed object.

2.3. PEDESTRIANS, BICYCLISTS, CATTLE DRIVES AND SNOWMOBILES

The Adventure Cycling Association (ACA), an association based in Missoula, Montana that claims 40,000 members nationwide, indicates that Montana Secondary 278 is part of their TransAmerica Route which spans from coast to coast. They indicate that they have documentation that at least 2,000 bicyclists travel the entire route each year which leads to the assumption that at least 2,000 bicyclists travel through the project area on Montana Secondary 278 each year. ACA indicates that the existing roadway in the project area is a very good location for bicycling because of the low traffic volumes and high visibility. They indicate that 2 foot wide shoulders are not a problem in this area because of the low traffic volumes and good visibility. They indicate that drivers in the area are better than average with regard to courtesy and friendliness toward bicyclists. Another benefit of this route is the many approaches and other areas where bicyclists can pull off the roadway to rest.

During the spring (early May) and fall (October) it is estimated that approximately 1,000 pairs (cow and calf) of cattle are driven along the portion of this proposed project from Station 92+00 to the end of the project. In the spring, these drives occur to take cattle from ranches east of the proposed project to the high pastures near Big Hole Pass near Station 92+00. In the fall, these drives bring cattle back to the lower elevation ranches to the east. No cattle drives occur on the west side of the pass on the roadway from the beginning of the project to Station 92+00. Cattle generally walk along in the roadway and on the shoulders of the roadway while some stray into the borrow ditches and fill slopes.

Almost no pedestrian use occurs on this roadway.

Snowmobiles use the area in the winter mostly for crossing the highway and traveling in the existing borrow ditches. There is a need for snowmobiles to cross the highway at the USFS access road at Station 92+14, then travel along the highway to the west to the Bull Creek Road at Station 76+84.

2.4. RELATED PROJECTS

The proposed project is one of a series of highway improvements on Montana Secondary Highway 278 between Interstate Highway 15 and the Montana Highway 43 in Wisdom, Montana that have been constructed or are planned to be constructed as part of an overall plan to improve the highway.

Polaris Road), March 1996, Amended August 1996.

A project is planned by the Federal Highway Administration to reconstruct a portion of the Wise River to Polaris Road, MT Forest Highway Route 73 (FH 73). This project connects with Montana Secondary Highway 278 a few miles southeast of the proposed Carroll Hill East & West project and extends northerly for 24.7 kilometers (15.4 miles) through the community of Polaris to Price Creek. An environmental assessment and a finding of no significant impact have been completed.

As indicated in Section 2.1., a snowmobile parking area will be constructed near the top of Big Hole Pass and accommodations will be made for snowmobiles to travel outside the highway and within highway right-of-way in some locations. This coordinates well with area-wide trail development plans and activities being conducted by local snowmobile organizations.

3. ALTERNATIVES UNDER CONSIDERATION

This section describes alternatives that have been evaluated and identifies and discusses the preferred alternative.

3.1. THE NO-ACTION ALTERNATIVE

This alternative is included, as required by Paragraph 1502.14(d) of the CEQ Regulations,[4] and will consist of leaving the existing roadway as-is with no changes or improvements.

3.2. CONSTRUCT THE ROADWAY NEAR ITS CURRENT ALIGNMENT

This alternative, shown on the attached aerial photo, generally follows the existing alignment -- minor adjustments will be required to accommodate required grade and alignment changes and to minimize or avoid conflicts and impacts on streams and wetlands.

This alternative will also include construction for improved wildlife crossings at approximate Stations 85+00, 111+00 and 122+00. This construction will include 3H:1V fill slopes; planting of vegetation suitable for animal cover and similar to adjacent vegetation to the edge of the clear zone; and providing equipment to the USFS for monitoring at these crossings. It is thought that wildlife follow riparian and brushy areas along streams that cross the highway in these areas. The above measures should help preserve the continuity of these travel corridors.

3.3. ALTERNATIVES PREVIOUSLY EVALUATED BUT DROPPED FROM CONSIDERATION

A proposal to move the highway to a new location approximately 0.3 kilometers (0.2 miles) south between Stations 90+00 and 121+00, has been evaluated. This proposal was dropped from consideration because:

- Land owners in the area are opposed to it because, among other reasons, it would separate a large portion of range land from Divide Creek which is the only source of water for cattle.

- This new alignment will require approximately 20 hectares (49 acres) of additional right-of-way in an area that is currently undisturbed. A new roadway along the corresponding section of the existing alignment will make use of the existing right-of-way so that only 7 hectares (17 acres) of new right-of-way is required.

- A new alignment will require new construction in an area that is currently undisturbed. The area of the existing alignment, which has already been extensively modified by the construction of several different highway alignments over the years, will remain and will be unused -- reclamation will be expensive and may create additional impacts and disturbance to sensitive plants and wetlands.

---

[4] Council on Environmental Quality, Executive Office of the President, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, Reprint 40 CFR Parts 1500-1508 (as of July 01, 1986).

- The new alignment lies on a north facing slope. Snow and ice will melt much slower which creates maintenance problems and safety problems. The existing alignment lies on south facing slopes.

- This alignment may significantly impact the existing nearly pristine native mesic meadow plant community, particularly through weed introduction as a result of disturbance caused by highway construction[5].

A proposal was evaluated to pulverize the existing pavement, re-spread it over the existing gravel base course and then construct an asphalt overlay. This proposal was dropped from consideration because soils investigations have indicated that the existing base course is not adequate.

3.4. THE PREFERRED ALTERNATIVE

Based on public comment, environmental studies completed to-date and preliminary roadway designs, the preferred alternative is to construct the roadway on its current alignment, as described in Section 3.2 with minor adjustments to accommodate required grade and alignment changes and to minimize or avoid conflicts and impacts on streams and wetlands.

The reasons are summarized below:

- The No-Action Alternative will not meet the purpose and need of the proposed project because it will provide no improvement in existing horizontal curves, superelevation rates and other features. There will be no resulting improvement in safety, efficiency, level-of-service and convenience.

- The three consecutive curves between Station 92+50 to 110+00 will be replaced with three flatter curves with radii of 1250 meters (4100 feet). This will allow reduction of superelevation to 3% (using an 80 kph (50 mph) design speed) which will improve operation of trucks on the steep grades on slick roads.

- This alternative will provide for improved wildlife crossings at three locations (see Section 3.2).

- Fill slopes will be flattened to improve safety.

- Wide, flat shoulder slopes will be provided that will accommodate the large cattle drives that occur along the roadway in the spring and fall.

- This alternative will not separate range land from Divide Creek which is the only source of water for cattle.

- This alignment will require less new right-of-way than a new alignment.

---

[5] Roe, Lisa Schassberger, Botanist, letter dated 29 June 1995.

- The preferred alternative has received strong public support during the public scoping process (See Section 5).

Approximately 16 hectares (40 acres) of new right-of-way will be needed for the preferred alternative. Of this new amount, approximately 5.1 hectares (12.7 acres) will be required on National Forest System land. Approximately 3.2 hectares (7.9 acres) of the National Forest System land are on the north side of the proposed new roadway and 1.9 hectares (4.8 acres) are on the south side.

The following mitigation measures will be implemented if the preferred alternative is constructed:

- Where relocation of irrigation facilities is required, timing and method of construction will be such that existing water rights and irrigation will not be affected (See Section 4.5).

- MDT's Standard Erosion Control Work Plan will be used to ensure that erosion and sedimentation of streams does not occur as described in Section 4.10.3.

- Where wetland impacts cannot be avoided, replacement will be completed as described in Section 4.11.

- Where culverts are extended in streams with existing or potential fisheries, they will be constructed not to impede continued fish passage (See Section 4.12.1).

- The following measures will be completed to mitigate potential adverse impacts to wildlife (See Section 4.12.2):

    - Damage to vegetation will be limited to areas necessary for placement of the new highway and for safety clearances.

    - Revegetation of areas disturbed by construction will begin immediately after construction and will, as closely as possible, restore habitats to pre-construction conditions or better.

    - To reduce the possibility of wildlife entrapment, fences on National Forest System lands and in other areas, where landowners area agreeable, will be built to USFS[6] standards.

- Sensitive plant populations near the highway that are not within final construction limits will be protected during construction by placement of construction flagging.

- Should additional cultural resources be discovered during project construction the provisions of 36 CFR 800.11, which outlines an agency's responsibilities should significant historic properties be discovered during the implementation of an undertaking, will be complied with.

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[6] Throughout this document, USFS means USDA-Forest Service, Beaverhead-Deerlodge National Forest, Dillon Ranger District.

- The following measures will be implemented, as described in Section 4.16., to mitigate adverse impacts resulting during construction of the proposed project:

    - Requirements of the Montana Department of Transportation, Standard Specifications will be followed to help mitigate dust and other air pollution during construction. Dust will be controlled by watering or temporary surfacing.

    - Potential erosion will be prevented as described in Section 4.10.3.

    - Traffic will be maintained through construction. Delays will be kept to a minimum. A traffic control plan will be developed to best maintain traffic during construction and ensure that safety standards are met.

    - Gravel and borrow sources will be reclaimed in accordance with rules and regulations of the Montana Open Cut Mining Act.

    - Excavation and fill slopes will be topsoiled and reseeded to establish natural, beneficial vegetation to enhance soil stability and reduce weed invasion (see Section 4.12.3). Other erosion control measures described in Section 4.12.3. will be implemented.

4. AFFECTED ENVIRONMENT AND IMPACTS

The following sections discuss, for the preferred alternative (see Section 3.4) and the No-Action Alternative (see Section 3.1), the following:

- existing conditions,
- potential impacts and, where appropriate,
- mitigation measures.

Other alternatives were evaluated but were dropped from consideration as explained in Section 3.3.

4.1. SOCIAL AND ECONOMIC

There are no known communities or concentrations of minorities in the project area.

The main trade activities in the project area are farming, ranching and tourism. The route carries traffic from I-15 and the Dillon area to Wisdom, Missoula and Idaho. There are no schools, churches or designated recreational sites along the proposed project.

Recreational activities in the project area include snowmobiling, cross-country skiing, hunting, hiking, off-highway driving, observing nature, historic sites and other activities.

The improvements primarily involve upgrading the existing facility on or near the existing alignment. Existing approaches and access will be perpetuated where needed. Existing traffic patterns will not be changed.

Some National Forest System lands will be removed from grazing (see Section 4.6. Right-of-Way). On the north side of the proposed new roadway, approximately 2.5 animal unit months (AUM) will be lost and on the south side approximately 2.1 AUM will be lost. In terms of the effect to the livestock operations, on the north side the forage equivalent of 2.0 cow-calf pair for one month and on the south side 1.6 cow-calf pair for one month would be lost.[7]

During construction, some inconvenience may occur for the cattle drives that occur along the roadway during spring and fall (see Section 2.3). The construction contractor will be required to work with cattle ranchers to adjust the work schedule and coordinate and accommodate cattle drives through the construction area during these times.

The improved roadway, along with the proposed snowmobile parking area, is expected to have a beneficial impact on trade activities and recreational activities.

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[7] Hicks, William B., District Ranger, Beaverhead-Deerlodge National Forest, United States Department of Agriculture.

Construction of the proposed project may improve the value of lands and improvements near the highway because of the substantial improvements in safety, access and driving convenience.

There will be some short term beneficial economic impacts to the local communities during the construction period including increased sales in supplies, construction materials, fuel, food, rentals, lodging, services and increased employment opportunities.

Construction of the proposed new highway will require minor conversion of ranch land and farmland (mainly hay and grazing lands) to highway right-of-way with related loss in production and economic impacts.

Overhead power (Vigilante Electric Cooperative) and underground telephone lines (Southern Montana Telephone Company) exist parallel with and crossing portions of the proposed project. None of the power facilities will require relocation. Approximately 4700 meters (15,400 feet) of buried telephone cable will require relocation. Approximately 1050 meters (3450 feet) of this total is on USFS lands. These telephone cables will require relocation generally from the edge of the existing right-of-way line to the edge of the new right-of-way line. The relocation will be conducted by the utility company. Only brief interruptions in service are expected while connections are made to the relocated facilities.

The No-Action Alternative would not require the conversion of farm or ranch lands to highway right-of-way. The No-Action Alternative would also eliminate the short-term economic benefits directly related to highway construction.

4.2. VISUAL

The USFS[8] indicates that, for lands controlled by the USFS, guidelines have been established for acceptable change in visual resources. The guidelines or objectives for this area say that the landscape should appear natural as seen from this road. The "viewing platform" or roadway, will always be an alteration and is excepted from this objective since it provides the view.

Since the construction of the preferred alternatives will generally involve improving an existing roadway with only minor horizontal or vertical alignment changes, substantial adverse effects on the visual environment are not expected to occur.

The proposed new highway will be easier and more comfortable to drive which will increase and enhance the opportunity for drivers to view the landscape from the roadway.

The roadway will be constructed with smooth, rounded excavation and embankment slopes and varied contours to match and blend in with the adjacent natural terrain as much as possible.

No visible impacts, either beneficial or negative, would occur with the No-Action Alternative.

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[8] Throughout this document, USFS means USDA-Forest Service, Beaverhead-Deerlodge National Forest, Dillon Ranger District.

Topsoil and seeding will be placed on all disturbed areas to within 0.5 meters (1.6 feet) of the asphalt pavement.

Borrow sites used for highway construction will have temporary visual impacts. As described in Section 4.16 CONSTRUCTION, once construction is complete, the area will be reclaimed and returned to its former uses.

4.3. LAND USE

No substantial development is occurring in the project area. No land use planning or zoning has been conducted or implemented by local government agencies in the project area.

Land use along the existing and proposed alignment is almost entirely irrigated and non-irrigated grazing.

The National Forest System land within and adjacent to the project area is within the Beaverhead-Deerlodge National Forest, managed under the Beaverhead National Forest Land Management Plan. The proposed right-of-way is within Forest Plan management area 23. Road construction and reconstruction are permitted within this management area, and corridor facilities may be constructed. The overall goals for this management area are related to livestock forage and vegetation, and meeting Forest-wide standards for other resources including water quality, fisheries and wildlife habitat.

Effects of the alternatives for the proposed project on agricultural, adjacent lands, streams, wetlands and wildlife habitat are summarized in Sections 4.4, 4.6, 4.10.1, 4.11 and 4.12.

4.4. AGRICULTURAL LANDS

The proposed project has been coordinated with the Natural Resources Conservation Service (formerly the Soil Conservation Service). There are no prime or unique farm lands or lands classified by the SCS as farm lands of statewide or local importance that will be affected by the proposed project.

Potential effects of the proposed project on irrigation/drainage ditches are discussed in Section 4.5 IRRIGATION of this document.

Before highway construction begins, the proposed new right-of-way will be fenced, where appropriate, to continue to confine livestock on adjacent properties. Some temporary fencing will be required. As explained in Section 4.12.2, fencing on USFS controlled lands and on other lands (where permitted by owners) will meet USFS standards to facilitate wildlife crossing.

An existing water collection system consisting of long ditches and dikes and located north of approximate Station 94+00 will be removed by the proposed action. This system collects water on the north side of the existing highway and conveys it, by a small PVC pipeline, across the highway to water stock on the south side of the existing roadway. This system will be replaced by a similar system on the north side of the highway, by a well or other water source on the

south side of the highway. The system and the land it serves are on private land and coordination is occurring with the two landowners involved.

The No-Action Alternative will not affect agricultural land in the project area. No new right-of-way will be required.

4.5. IRRIGATION

No major irrigation systems are involved with this project but several small irrigation/drain ditches run parallel to and cross the existing highway. These ditches will be perpetuated.

Provisions will be included with project design and specifications to require that the timing and method of construction do not interfere with the exercise of existing water rights and that any water rights facilities that are involved will be maintained or replaced.

The No-Action Alternative will have no impact on irrigation in the project area.

4.6. RIGHT-OF-WAY

There are approximately 50 hectares (124 acres) of existing right-of-way for the highway of which approximately 17 hectares (42 acres) are on National Forest System lands.

Approximately 16 hectares (40 acres) of new right-of-way will be needed for this proposed project. Of this new amount, approximately 5.1 hectares (12.7 acres) will be required on National Forest System land. Approximately 3.2 hectares (7.9 acres) of the National Forest System land are on the north side of the proposed new roadway and 1.9 hectares (4.8 acres) are on the south side.

In addition to the above right-of-way requirements on National Forest System lands, a 70-meter (230 feet) wide temporary construction permit will be required on the right (south) side of the proposed new right-of-way from Stations 99+20 to 101+20. This permit will be required to allow relocation of the existing stream, as indicated in Section 4.11. (upper end of Wetland 3).

An underground telephone line lies adjacent to and parallel with much of the proposed project -- relocation may be required in some areas (see Sections 4.1.).

No new right-of-way would be required with the No-Action Alternative.

4.7. RELOCATIONS

There are no households or businesses that will require relocation.

4.8. NOISE

As defined by 23 CFR, Part 772, noise impacts occur when:

1. The Noise Abatement Criteria (NAC) threshold level is approached (within one A-weighted decibels [dBA]) or exceeded. The exterior noise abatement threshold for NAC Category B is hourly equivalent sound level (Leq(h)) = 67 dBA. Category B includes picnic areas, residences, schools, churches and public meeting facilities and generally applies to this proposed project.

2. The noise levels resulting from a proposed project substantially exceed (by 10 dBA or greater) the existing noise levels.

The residence at the Carroll Ranch is the only noise receptor located along the project. Existing noise levels at this location are well below the 67 dBA threshold. The roadway centerline of the Preferred Alternative, in this location, will not move closer to the buildings so noise levels will not increase above those that will occur with the No-Action Alternative. Similar increases in future traffic volumes are expected with either the Preferred Alternative or the No-Action Alternative.

Increased noise levels from construction equipment will occur during construction. This condition will be temporary and should occur only during the day during normal working hours.

Since no adverse noise impacts are expected, no mitigation measures were considered or are required.

4.9. AIR QUALITY

This proposed project is located in an "unclassifiable"/attainment area of Montana for air quality under 40 CFR 81.327, as amended. As such, this proposed project is not covered under the U.S. Environmental Protection Agency's **Final Rule** of November 24, 1993 on Air Quality conformity. Therefore, this proposed project complies with Section 176(c) of the *Clean Air Act* as amended (**42 U.S.C. 7521(a)**).

Carbon Monoxide emissions will increase as traffic volumes increase with either the Preferred Alternative or the No-Action Alternative. However, because the Preferred Alternative will improve the highway alignment and thereby improve vehicle operating characteristics, CO emissions will be less than with the No-Action Alternative.

Requirements of the Montana Department of Transportation, Standard Specifications[9] will be followed to help mitigate dust and other air pollution during construction. These specifications require adherence to all federal, state and local air quality regulations and permit requirements and set forth guidelines for asphalt plants, earthwork operations and other construction activities to help minimize air quality impacts.

With the No-Action Alternative, there will be no short-term air quality impacts from asphalt plants and gravel crushers associated with the highway construction. However, air pollution

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[9] Montana Department of Transportation, Standard Specifications for Road and Bridge Construction, 1987 Edition.

emissions from transportation sources will not be reduced as is the case with the Preferred Alternative.

4.10. WATER QUALITY

4.10.1. Floodplains

There are no delineated floodplains in the project area. Therefore, none of the alternatives considered will affect delineated floodplains.

4.10.2. Wells/Septic Systems

There are no wells or septic systems that will be impacted by the Preferred Alternative.

4.10.3. Erosion and Water Quality

Soils in the project area that are exposed during construction are susceptible to erosion.

There is a potential for erosion impacts to occur, with resulting water quality impacts, with the Preferred Alternative. No erosion or water quality impacts would occur with the No-Action Alternative.

An Erosion Control Plan will be submitted to the Montana Department of Environmental Quality's Water Quality Division in compliance with their Montana Pollution Discharge Elimination System Regulations (ARM 16.20.1314) for this proposed project. Best Management Practices will be included in the design of this Plan using guidelines as established in MDT's Highway Construction Standard Erosion Control Work Plan. The objective is to minimize erosion of disturbed areas during and following construction of this proposed project.

In accordance with 7-22-2152, and 60-2-208 M.C.A., MDT will re-establish a permanent desirable vegetation community along all areas disturbed by the proposed construction. A set of revegetation guidelines will be developed by MDT that must be followed by the contractor. These specifications will include instructions on seeding methods, seeding dates, types and amounts of mulch and fertilizer, along with seed mix components. Seed mixes include a variety of species to assure that areas disturbed by construction are immediately stabilized by vegetative cover. The Seeding Special Provisions developed for this proposed project will be forwarded to the responsible County Weed Board for approval.

The erosion control work plan will also apply to and be developed for all borrow sites required to construct this project.

4.11. WETLANDS

Existing Environment

Wetlands along the project were delineated in accordance with the 1987 Corps of Engineers (COE) wetland delineation manual. The results of wetland surveys were documented in two

separate reports[10,11]. All wetlands along the project were mapped on project plan sheets, which are presented in Appendix A.

MDT wetland site evaluation forms, which assign overall wetland ratings based on evaluated functional parameters, were completed for all wetlands. Category I wetlands are considered exceptionally high value wetlands (there are none in the project area). Category II wetlands are considered high value wetlands, followed by categories III (moderate value) and IV (low value).

Many of the identified wetlands along the proposed project are very narrow (e.g., 1 to 20 feet wide) emergent "drainage ditch" type strips of low value (Category IV) located immediately adjacent to the toe of existing highway fill slopes. Other narrow "ditch" type wetlands at the base of fill slopes were assigned moderate overall ratings (Category III) due to the preponderance of shrubs (primarily willow species) associated with them and the general presence of flowing surface water. A few sites (Sites 10 and 22) consist of larger wet meadows occurring adjacent to the highway; each rated as a Category III wetland.

Several of the wetlands occur in association with seasonal or perennial drainages. Sites A2 and A2B (Divide Creek tributary), 3 and A3 (Divide Creek), and 8 and A8 (Bull Creek) occur in association with fairly large perennial drainages. Only Site 6 contains standing or retained water and consists of a small pond backed against the toe of the road fill. Sites A2B and 3 (both associated with Divide Creek), and 8 and A8 (associated with Bull Creek) rated the highest using the MDT evaluation method, all achieving Category II ratings. The remainder of the sites rated as Category III or IV.

Impacts

A total of 0.86 hectares (2.03 acres) of wetlands will be lost to construction of the proposed project. Table 1 presents the overall category of each delineated wetland and the approximate impacts to each that will result. As shown on Table 1, approximately 0.20 hectares (0.49 acres) of Category II wetlands, 0.43 hectares (1.03 acres) of Category III wetlands, and 0.23 hectares (0.51 acres) of Category IV wetlands will be affected.

Of these totals, the following impacts will occur on National Forest System land:

- Approximately 0.08 hectares (0.19 acres) of Category II wetlands on the upper end of Wetland 3 (see Appendix A) near Station 99+40 to 101+20 (right); and

- Approximately 0.03 hectares (0.08 acres) of Category III wetlands at Wetland A3 (see Appendix A) near Station 111+00.

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[10] Morrison-Maierle Environmental Corporation, Montana Department of Transportation, Biological Resources Report, Carroll Hill East & West - RS 278-1(9)30, 22 November 1994.

[11] Morrison-Maierle Environmental Corporation, Wetland Addendum: Montana Department of Transportation, Biological Resources Report, Carroll Hill East & West - RS 278-1(9)30, 11 August 1995.

Table 1, Wetlands Affected by the Proposed Project

WET-LAND NO.	WETLAND AREA FILLED BY CONSTRUCTION							
	CATEGORY II		CATEGORY III		CATEGORY IV		TOTALS	
	HEC-TARES	ACRES	HEC-TARES	ACRES	HEC-TARES	ACRES	HEC-TARES	ACRES
2							0	0
A2							0	0
3	0.08	0.19					0.08	0.[illegible]8
A3			0.03	0.08			0.03	0.08
4							0	0
5			0.02	0.04			0.02	0.0[illegible]
6			0.11	0.26			0.11	0.26
A6			0.04	0.11			0.04	0.[illegible]1
7			0.01	0.01			0.01	0.01
A7			0.02	0.0[illegible]			0.0[illegible]	0.06
8	0.04	0.10					0.03	0.1
A8	0.08	0.20					0.08	0.2
9			0.01	0.01			0.01	0.01
10			0.14	0.[illegible]4			0.14	0.34
11					0.01	0.04	0.0[illegible]	0.01
12					0.02	0.04	0.02	0.04
13					0.06	0.14	0.06	0.14
14					0.02	0.04	0.02	0.04
15					0.01	0.02	0.01	0.02
16					0.05	0.13	0.05	0.13
17					0.03	0.04	0.03	0.07
18					0.02	0.04	0.02	0.04
19					0.01	0.02	0.01	0.02
20							0	0
21			0.05	0.12			0.05	0.12
TOTALS	0.2	0.49	0.43	1.03	0.23	0.51	0.86	2.03

Note: Wetlands 3 and A3 are on National Forest System Land. All others are on private land.

The remaining impacts will occur on private land.

The No-Action alternative will result in no impacts to wetlands in the project area.

Mitigation

Various measures have been evaluated to avoid or minimize wetland impacts. Roadway excavation and embankment slopes will be designed and constructed to minimize wetland impacts while still meeting current standards. At all stream crossings, the new or extended culverts will be designed to more closely match the alignment of the existing channel; existing sharp bends in the channels at culvert ends will be reduced. The upper end of Wetland 3 will be expanded and enhanced by excavating additional meanders beyond the proposed construction limits. Minor alignment adjustments have been evaluated but none have been identified that will substantially reduce wetland impacts without creating equal or greater impacts on the opposite side of the roadway.

Based on the perceived amount of seeps along the project, it is anticipated that wetland strips similar to those along the existing highway would establish in various locations along the toe of fill following construction. Wetlands could also develop in new borrow areas, although it is not possible at this time to predict precisely where and how much wetland may develop naturally following construction.

Compensatory mitigation for the anticipated 2.03-acre wetland loss resulting from the proposed project will be carried out at the Beaverhead Gateway Ranch, which is located along the Beaverhead River approximately 35 miles due east/northeast of the Carroll Hill project. MDT proposes to restore approximately 53 acres of drained wetlands at this site, a portion of which will be applied (credited) to impacts resulting from the Carroll Hill project.

It is anticipated that the functions and values at restored wetlands will equal or exceed those lost to the Carroll Hill project. The Beaverhead Gateway Ranch mitigation project has been approved by the MDT Interagency Wetlands Group, which includes MDT, FHWA, COE, Environmental Protection Agency, Natural Resources Conservation Service, U.S. Fish & Wildlife Service, Montana Department of Fish, Wildlife & Parks, and Montana Department of Environmental Quality. The mitigation project, however, will itself be subject to environmental analysis beyond the scope of this document.

The following general measures are recommended to minimize disturbance of wetlands and other waters of the United States during construction of the proposed project:

> All Section Clean Water Act Section 404 permit conditions, as well as Section 401 water quality certification and Montana Stream Protection Act (124) conditions, and any additional state or federal water quality requirements/conditions will be complied with.
>
> Construction equipment operating in wetlands will be limited to that which is needed to perform the necessary work. Width of the construction ROW will be minimized to the extent possible in wetland and stream crossing areas.

Where required, vegetation removal in the ROW beyond cut or fill areas will occur at ground level, leaving existing root systems intact. Disturbed streamside areas will be revegetated with native plant material obtained from local sources. Additionally, appropriate measures will be taken to prevent the introduction/spread of noxious weeds into wetland areas.

4.12. FISH, WILDLIFE AND PLANTS

This section discusses wildlife, fisheries, vegetation and rare or sensitive species in the area of the proposed project. Threatened or endangered species are not discussed in this section but are discussed in Section 4.13. THREATENED OR ENDANGERED SPECIES.

A biological and sensitive species report[12] has been completed.

4.12.1. Fisheries

Existing Environment

Three stream beds are crossed by the proposed project: Bull Creek (Station 61+84), Ames Creek (Station 121+16) and a tributary to Divide Creek (Station 110+83). Bull Creek and Divide Creek and its tributary are known to contain brook trout up to 20 centimeters (8 inches) long and mottled sculpin.

Westslope cutthroat trout are a USFS regional sensitive species and a species of special concern for the State of Montana. None of the streams mentioned above contain westslope cutthroat trout in the project area.

Fluvial arctic grayling occur in southwest Montana and are considered a species of special concern. They are also listed C1 (ie. substantial biological information is on file to support the appropriateness of proposing to list as endangered or threatened) by the U.S. Fish and Wildlife Service. Although fluvial arctic grayling were reported in Bull Creek historically, no recent documentation of their presence is available. Consequently, it appears that this species does not currently inhabit the streams encountered on this reconstruction project.

Impacts

The pipe culverts at Bull Creek will remain in place and will be extended by 2 meters (6.6 feet) to accommodate the flatter, wider fill slopes of the proposed new roadway. The culvert at Ames Creek will remain in place with no changes; it will not be affected by the proposed project. The culvert at the Divide Creek Tributary will be replaced with a 1200 mm (48 inch) diameter pipe culvert that matches the existing channel alignment more closely to avoid erosion that is now occurring. These improvements will not impede fish passage that may be occurring at these locations.

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[12] Morrison-Maierle Environmental Corporation, Montana Department of Transportation, Biological Resources Report, Carroll Hill East & West - RS 278-1(9)30, 22 November 1994.

Potential exists for downstream effect due to increased siltation during construction, particularly at Bull Creek which apparently has a more substantial fishery than Divide Creek.

Removal of riparian vegetation may result in loss of stream bank stability, fish hiding and feeding cover, change in stream temperature, woody debris recruitment and reduction of food chain support.
Road sanding during winter may continue to be a sediment source where the new or the existing roadway parallels or crosses the streams.

It has been determined that the proposed action will have no impact on westslope cutthroat trout or fluvial arctic grayling on National Forest System lands[13].

Mitigation

Impacts to fisheries will be minimized during and after construction by adhering to the measures outlined in Section 4.10. WATER QUALITY. The goal of these plans is to increase channel stability, reduce potential sedimentation from highway reconstruction and maintenance, and to enhance fishery habitat. This coupled with best construction practices and avoidance of impacts as much as possible will result in negligible impacts to fish habitat and population numbers.

4.12.2. Wildlife

Existing Environment

General Wildlife. The Big Hole Divide area functions as a movement corridor for several wildlife species; particularly elk, although most seasonal elk movement in the immediate project area generally occurs parallel with the highway[14]. White-tailed deer, mule deer, moose and pronghorn are additional big game species in the project area. Other mammals which may frequent the area include raccoon, porcupine, mink, striped skunk, badger, red fox and coyote.

Although the presence of riparian habitat contributes to the diversity of potential bird use in the area, relatively low species diversity is expected given the local prevalence of sagebrush/grassland community. Common species in the project area include American kestrel, red-tailed hawk, mountain bluebird, American robin, American crow, eastern kingbird, and savannah sparrow. Herptiles likely to occur in the general area include spotted frog, western toad, northern leopard frog, western rattlesnake, gopher snake, rubber boa, and common garter snake.

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[13] USDA Forest Service, Northern Region, Beaverhead-Deerloge National Forest, Biological Evaluation, Westslope Cutthroat Trout and Fluvial Arctic Grayling, 04 November 1996.

[14] Bowey, C.J. District Wildlife Biologist, Dillon Ranger District, Beaverhead National Forest. Dillon, MT. December 1996 meeting.

Species of Concern. USFS species of concern on the Dillon Ranger District (DRD) include threatened and endangered species, USFS sensitive species, and USFS management indicator species and are listed below in Table 2. Threatened and endangered species are discussed separately in Section 4.13.

Table 2, Wildlife Species of Concern -- Dillon Ranger District

Threatened and Endangered Species	USFS Sensitive Species	USFS Management Indicator Species
Gray Wolf*	Townsend's Big-Eared Bat	Elk*
Peregrine Falcon*	Lynx*	Sage Grouse
Bald Eagle*	Fisher*	American Marten*
	Wolverine*	Northern Goshawk
	Northern Bog Lemming	Trumpeter Swan
	Trumpeter Swan	Grizzly Bear
	Boreal Owl	Gray Wolf*
	Flammulated Owl	Peregrine Falcon*
	Ferruginous Hawk*	Bald Eagle*
	Black-Backed Woodpecker	
	Sage Grouse*	
	Harlequin Duck	

* Species expected at times in the immediate project area.

Impacts

General Wildlife. Although some alignment shifts are proposed, virtually all of the construction would occur in areas that are immediately adjacent to the existing highway and are currently subjected to other sources of human disturbance including agricultural (farming, grazing) and recreation. Consequently, habitat to be affected by the project is generally judged to be of low to moderate overall quality. Direct impacts to wildlife habitat in the project area resulting from the proposed action are therefore considered minor.

Construction would result in direct wildlife mortality; primarily to those species with limited mobility and/or those that could conceivably be occupying their burrows or nests at the time of construction (e.g., mice, voles, young birds/eggs, frogs, salamanders, snakes, badgers, ground squirrels). More mobile species, such as adult deer, coyotes, and most adult birds, would be able to avoid direct mortality by moving into adjacent habitat. Because traffic speeds may increase with the improvement of the road, traffic-related wildlife mortality may also increase. However, because sight distances will also increase as the road is widened and straightened, any increase in mortality is expected to be minor.

Indirect disturbance to wildlife communities in the project area that construction activities would cause is considered minor, as the disturbance would be temporary and alternative habitat similar to that which would be affected is locally abundant. The survival of displaced species which resided exclusively within the construction area (e.g., species with very limited home ranges, such as mice and voles), however, would depend on the carrying capacity of adjacent undeveloped habitat.

Replacement of ROW fences with fencing not compatible with big game movement may obstruct/restrict big game movement across the highway and/or result in mortality via entanglement. Employment of "big game-friendly" fence designs would alleviate this potential impact.

Species of Concern. A biological evaluation (BE) relative to USFS species of concern was prepared[15] in compliance with the Beaverhead National Forest Plan and the Forest Service Manual (FSM 2672.4). The BE concluded that, relative to lynx, wolverine, fisher, American marten, and elk, the proposed project may impact individuals or habitat but is not likely to result in a trend toward federal listing or reduced viability for the population or species (may impact but no reduced viability). No impacts were anticipated relative to the remaining species in Table 2. Results of the BE are summarized below. Threatened and endangered species are discussed separately in Section 4.13.

Several of the USFS-listed sensitive species on the DRD (Table 2) would not be affected by the proposed project. These species are listed in Table 3 along with the rationale for each of these "no impact" determinations.

The primary effects of road presence, under both the existing and improved conditions, with respect to lynx, wolverine, fisher, and American marten are direct mortality and slowing or discouraging north-south movement between suitable habitat areas. Impairment of such movement between populations contributes, in essence, to habitat fragmentation.

Assuming that movement of these rare carnivores across the highway occurs in the project area, increased vehicle speeds on the improved road may increase the chance for vehicle-inflicted mortality. Widening and straightening, however, would increase sight distance and may improve opportunities for drivers to change lanes and avoid animals. Additionally, the nocturnal habits of these species (particularly lynx and wolverine) may serve to reduce the chance of vehicle-inflicted mortality because lowest traffic volumes are expected during evening hours.

The existing highway acts cumulatively with the lack of forest cover on the natural landscape to restrict movement of these species between forested communities occurring a minimum distance of 0.25 miles north and south of the highway. The improved highway, with its likely increased vehicle speeds, would add incrementally to this impediment. Increasing traffic levels would also contribute to this impact, although these levels are expected to increase irrespective of proposed road improvements (e.g., under either the "no action" or "build" alternatives). Widening may facilitate avoidance of animals by vehicles, but would also slightly increase the required crossing distance.

Although cover of darkness may facilitate cross-highway movement near the pass by compensating somewhat for the lack of forested cover, only limited, if any, movement across non-forested areas is expected. Given their general aversion to open areas and known association with riparian areas, movement of these species across the highway likely occurs in

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[15] Morrison Maierle Environmental Corporation. 1997. Biological evaluation for threatened, endangered, sensitive, and management indicator species; Transportation Project Carroll Hill - East & West; STPS 278-1(9)30. Helena, MT.

association with heavily-forested riparian areas. Two such areas, Divide Creek and an unnamed tributary to Divide Creek, are traversed by the existing (and proposed) alignment. Both riparian areas occur on the east side of the pass in the general area in which the distance between forest communities is the least in the project area. Thus, it is primarily at these riparian crossings that mitigation measures are focused.

Table 3, USFS Sensitive Species for which no Impacts are Anticipated

Species	Primary Habitat Components	Rationale for "No Impact" Determination
Townsend's big-eared bat	rocky outcrops, caves, old mines for roosting	Not known in immediate project area; no primary habitat would be affected.
northern bog lemming	bogs, fens, wet alpine and subalpine meadows	Not known in immediate project area; no primary habitat would be affected.
trumpeter swan	margins of interconnected shallow marshes and lakes, lakes within forested or sagebrush habitat, river oxbows	Not known in immediate project area; no primary habitat would be affected.
boreal owl	high elevation (5,000 - 8,000 feet) subalpine forests characterized largely by subalpine fir and Engelmann spruce	Known from general project area (approximately 2.4 kilometers [1.5 miles] north of highway in 1991), but no primary habitat would be affected.
flammulated owl	mid-level conifer forests with a significant ponderosa or yellow pine component	Not known from immediate project area; no primary habitat would be affected.
black-backed woodpecker	pine forests in association with concentrations of dead or decaying trees and logs	Not known from immediate project area; no primary habitat would be affected.
harlequin duck	remote, isolated, swift mountain streams with dense shrubs and braided channels away from concentrated human activities	Not known from immediate project area. Although three streams are crossed by the proposed project (Bull Creek, Divide Creek, and a tributary to Divide Creek), impacts will occur immediately adjacent to the existing highway in unsuitable habitat.
ferruginous hawk	unbroken native prairie grasslands, plains and grasslands; nest on low hillsides, ridgetops, or buttes	Likely occurs in project area, but no nesting known from immediate project area. No primary nesting habitat would be affected
sage grouse	sagebrush rangelands with 15 - 50 percent sagebrush cover	May occur in project area, but no leks or winter range known in immediate project area.

Improvement of the Pioneer Mountain Scenic Byway, expansion of the Maverick Mountain Ski Area, and other proposed projects in the general vicinity would cumulatively add to the impacts of the Carroll Hill project (or vice versa), incrementally increasing human influence (via

increased traffic speeds, possible increased traffic volumes, and possible increased activities) and incrementally reducing the opportunity for successful long-range movements of rare carnivores. Substantial cumulative effects, however, are not expected; particularly upon implementation of mitigation measures.

Effects to the northern goshawk and elk are presented in Table 4.

Table 4, Effects on Northern Goshawk and Elk

Species	Primary Habitat Components	Nature of Effects and Rationale
northern goshawk	mature deciduous, coniferous, and mixed forests with tall trees allowing hawk maneuverability and providing nest sites	No impacts anticipated. Species not known in immediate project area and no primary habitat would be affected.
elk	semi-open forest, mountain meadows, foothills, plains, and valleys	Minor effects anticipated. No critical ranges will be affected. No forested (thermal, hiding cover) habitat will be lost. Elk movement in area generally occurs parallel to project corridor; no significant impacts to movement anticipated. No significant cumulative effects anticipated.

Mitigation

The following measures will be employed to mitigate potential adverse impacts to wildlife:

- To facilitate the movement of lynx, wolverine, fisher, and marten across the highway, dense vegetation will be re-established and/or enhanced immediately adjacent to crossings of the riparian zones near Stations 112 and 121 (east of the pass) and at a small draw near Station 85 (west of the pass). Fill slopes will also be reduced in these areas where possible. Additionally, a cooperative monitoring project relative to these areas is proposed. Crossing data can be used to refine mitigation measures on the Carroll Hill project and can also be applied to proposed highway (and other) projects that involve rare carnivores in the DRD and the region.

- To facilitate the movement of elk and other big game in the project corridor, fences will be built using designs proven successful in accommodating big game crossing.

- Damage to vegetation will be limited to the areas necessary for placement of the new highway and for safety clearances.

- Revegetation of areas disturbed by construction will begin immediately following construction and will, as closely as possible, restore vegetation to pre-construction conditions.

- Abandoned roadway will be recontoured and vegetated to improve the quality of wildlife habitat.

4.12.3. Vegetation

Existing Environment

Two major plant communities, sagebrush\grassland (vastly dominant) and riparian, occur in the project area.

The sagebrush\grassland community is big sagebrush\Idaho fescue habitat. Big sagebrush dominates the study area. Dominant grass species include Idaho fescue, bluebunch wheatgrass, western wheatgrass, Sandberg's bluegrass, and prairie junegrass. Associated forb species include arrowleaf balsamroot, rosy pussy-toes, slender cinquefoil, and western gromwell. More mesic sites, such as slopes above drainages or where snowpack remains late into summer, support shrubby cinquefoil.

Riparian communities range from herbaceous to forested. The herbaceous community contains beaked sedge, dagger-leaf rush, common spikesedge, and other sedges. Willows occur along most of the drainages, while quaking aspen dominates some sites.

Road cuts and fills are commonly vegetated with big sagebrush, fringed sage, wheatgrasses, cheatgrass, timothy, smooth brome, and blue flax. Weeds, including spotted knapweed, cheatgrass and thistles, are also present in some areas.

A reconnaissance survey of special status plant populations within the project areas has been completed[16]. One sensitive plant species was located. A population of Lemhi penstemon consisting of 26 plants was dispersed across the south ½ of Section 8, T 6S, R13W, on both sides of the existing highway and in old highway fill slopes. All of these plants are on National Forest System land. Since the reconnaissance survey, several other individual plants have been located in the project area by MDT biologists. A Biological Evaluation (BE)[17] has been completed.

Impacts

The proposed highway reconstruction project will cause the obliteration of approximately 13 of the identified Lemhi penstemon plants.

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[16] Lisa Schassberger Roe, Botanical Report for TES Plants, Proposed Transportation Project FAS 278, Carroll Hill - East and West, RS 278-1(9)30, 13 September 1994.

[17] Roe, Lisa Schassberger, Botanist, Biological Evaluation for Threatened, Endangered and Sensitive Plant Species, Transportation Project FAS 278, Carroll Hill - East and West, RS 278-1(9)30, 11 December 1995.

An Effects Analysis[18] has been completed for the Lemhi penstemon plants. The analysis concludes that the Preferred Alternative *". . . may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the populations or species"*.

A summary of wetland areas affected by the proposed project is included in Section 4.11. WETLANDS.

The No-Action Alternative would have no impact on vegetation or wetlands in the project area.

Representatives of Beaverhead County indicate that construction of the proposed wider shoulders will improve access for weed control. Beaverhead County indicates that the on-going county weed control program will continue in this area and may be augmented because the current part-time weed control position is scheduled to increase to full time in the future.

Mitigation

All areas disturbed by construction will be reseeded as soon as practical after construction and no later than the same season the soil is exposed. A seed mixture consisting of natural grasses suitable for the area will be used. On National Forest System lands and possibly in other areas, the seeding mixture recommended by the USFS will be used. Topsoil will be placed to within 0.5 meters (1.6 feet) of the outside edge of asphalt and seeding will be placed to the outside edge of asphalt. It will be important to, as much as practical, establish vegetation that is able to sustain use by trailing cattle.

Washed equipment will be required of all construction contractors to help prevent the carry-on of noxious weed seeds.

The effects analysis, completed for the Lemhi penstemon plants, indicates that *"Road excavation and fill do not lend themselves to any practicable mitigation requirements. Previous recommendations (Appendix A) to save and reuse topsoil may produce some Penstemon lemhiensis (Lemhi penstemon) plants from soil bank seed, but is relatively unlikely and is not considered suitable mitigation."* As recommended in the effects analysis, the Montana Department of Transportation will evaluate the site in five years to determine if plants have reinvaded the project site.

4.13. THREATENED OR ENDANGERED SPECIES

Existing Environment

The U.S. Fish & Wildlife Service (USFWS) was contacted on several occasions[19] relative to identifying federally-listed or proposed threatened and endangered species that may be present in the project area. The USFWS identified the following listed threatened and endangered species as possibly occurring on the Dillon Ranger District (DRD): threatened bald eagle (*Haliaeetus leucocephalus*; resident, spring and fall migrant, nester); endangered peregrine

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[18] Svoboda, Dan, Ecologist-Soil Scientist, Beaverhead National Forest, 26 January 1996.

falcon (*Falco peregrinus anatum*; spring and fall migrant); and nonessential experimental gray wolf (*Canis lupus*; resident and transient). The threatened grizzly bear (*Ursus arctos*) is not considered present on the DRD and is not addressed further in this EA. No species proposed for listing as threatened or endangered occur on the DRD.

Bald Eagle. Bald eagles may occur as transients in the immediate project vicinity during migration. The nearest active nesting pair is on USFS land several miles from the project area between Jackson and Wisdom in conjunction with the Big Hole River. Nesting sites are commonly located in large (>23 meters [75 feet] tall) trees within 0.4 kilometer (0.25 mile) of rivers or water bodies greater than 16 hectares (40 acres). None of these habitat characteristics occur within several miles of the proposed project.

Peregrine Falcon. Peregrine falcons most commonly nest on high (greater than 60 meters [200 feet]) mountain cliff ledges and river gorges. Although not restricted to feeding on water-associated birds, the bulk of the peregrines' diet is comprised of swallows and shorebirds; consequently, this species often forages along rivers and near large bodies of water. Transient falcons have been sighted in the general project area; however, potential nest sites and the preferred food base are generally absent. No breeding/nesting has been recorded in the project area.

Gray Wolf. As a result of wolf reintroduction to Yellowstone National Park and central Idaho in 1994, wolves in the DRD are managed as a non-essential experimental population within the central Idaho experimental area and are not afforded full protection under the Endangered Species Act (e.g., are treated as proposed, rather than listed, species). Management of wolves throughout the non-essential area is not expected to impact current and proposed land uses within the Forest, nor are current and proposed land uses expected to impact wolf management[19].

Gray wolves primarily inhabit wilderness forest and tundra, but are not limited to these habitat types. Availability of year round prey, suitable and secluded areas for raising pups and sufficient space with isolation from human activities are key components of wolf habitat. No wolf pack activity has been confirmed on the DRD; most sightings reported throughout the district have been of lone individuals. Wolves generally occur on the DRD as transient individuals during movement between Yellowstone National Park, central Idaho, and Canada[20].

Impacts

Impacts to threatened and endangered species were assessed in the BE prepared for this project. A summary of projected effects to listed threatened and endangered species in presented in Table 5. No species proposed for listing as threatened or endangered occur on the DRD.

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[19] U.S. Department of Interior. 1994. The reintroduction of gray wolves to Yellowstone National Park and central Idaho. USDI Fish and Wildlife Service. Helena, MT.

[20] Bowey, C.J., 1996. Biological assessment: Bloody Dick Salvage Proposal. U.S. Forest Service, Beaverhead National Forest, Dillon Ranger District. Dillon, MT.

Table 5, Effects Summary for Threatened and Endangered Species --

Species	Occurrence Potential Adjacent to Project	Magnitude of Direct, Indirect Effects	Magnitude of Cumulative Effects	Determination
bald eagle	low	none	none	no effect
peregrine falcon	low	none	none	no effect
grizzly bear	low	none	none	no effect
gray wolf	low	low	low	not likely to jeopardize

Bald Eagle. No direct, indirect, or cumulative effects to bald eagle nest sites, breeding/nesting activities, nesting habitat, perch trees, or other important habitat components are expected to result from implementation of the proposed action. The scope and location of the proposed work warrant a no effect determination for the bald eagle and its habitat. The USFWS has concurred with this determination[21].

Peregrine Falcon. No direct, indirect, or cumulative effects to peregrine falcon nest sites, breeding/nesting activities, nesting habitat, or other important habitat components are expected to result from implementation of the proposed action. The scope and location of the proposed work warrant a no effect determination for the peregrine falcon and its habitat. The USFWS has concurred with this determination[21].

Gray Wolf. Dispersing and lone wolves (i.e., wolves not affiliated closely with a pack) typically travel over larger areas than members of a stable pack and, therefore, are more likely to encounter roads. Increased vehicle speed resulting from highway improvements may increase the risk of wolf mortality due vehicle-animal collisions; however, highway improvements may increase motorists' visibility of animals on or near the highway and facilitate avoidance of collisions. Widening may also provide a greater opportunity for drivers to change lanes and avoid animals.

Improvement of the Pioneer Mountain Scenic Byway, expansion of the Maverick Mountain Ski Area, and other proposed projects in the general vicinity would cumulatively add to the impacts of the Carroll Hill project (or vice versa), incrementally increasing human influence (via increased traffic speeds, possible increased traffic volumes, and possible increased activities) and reducing overall habitat suitability in the general area. Substantial cumulative effects, however, are not expected due to the transient nature of wolf activity in the area.

No direct, indirect, or cumulative effects to wolf den or rendezvous (pup rearing) sites, breeding/denning activities, primary habitat, or other important habitat components are expected to result from implementation of the proposed action. Additionally, the USFWS does not anticipate any incidental take of listed (threatened or endangered) species as a result of the proposed project. The scope and location of the proposed project warrant a not likely to

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[21] McMaster, K.M. 1995. February 28, 1995 letter to Brad Peterson, Morrison-Maierle/CSSA. U.S. Fish & Wildlife Service. Helena, MT.

jeopardize determination for the non-essential, experimental gray wolf and its habitat. The USFWS has concurred with this determination[22].

4.14. CULTURAL RESOURCES

Existing Environment

A cultural resources inventory and assessment[23] has been completed for the referenced project. It has been determined, by the Montana Department of Transportation with the concurrence of the Montana State Historic Preservation Office, that site 24BE1718, Carroll Ranch, is eligible for the National Register of Historic Places. The proposed roadway in this area will remain at approximately the same horizontal and vertical alignment as the existing roadway and will receive wider fill slopes. It has been determined, by the Montana Department of Transportation with the concurrence of the Montana State Historic Preservation Office, that the proposed project will have no effect on this site.[24]

Should additional cultural resources be discovered during project construction MDT will comply with the provisions of 36 CFR 800.11, which outlines an agency's responsibilities should significant historic properties be discovered during the implementation of an undertaking.

4.15. HAZARDOUS WASTE

Review of the Scope of Work, file details, photos and translites indicate there are no hazardous waste sites in the vicinity of this project. It has been determined that the proposed project will have no impact with regards to hazardous waste.

Existing asphalt pavement will be pulverized and reused for the construction of the proposed new project or will be placed in new highway embankments substantially below the surface. Other requirements and suggestions provided by the Montana Department of Health and Environmental Sciences[25] will be adhered to during construction.

Hazardous materials, including fuels and lubricating oils, will not be stored within 30 meters (100 feet) of wetlands or streams. Additionally, construction equipment will not be refueled within 30 meters (100 feet) of such streams.

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[22] McMaster, K.M. 1997. February 4, 1997 letter to Brad Peterson, Morrison-Maierle, Inc. U.S. Fish & Wildlife Service. Helena, MT.

[23] GCM Services, Inc., Cultural Resources Inventory and Assessment: Carroll Hill East and West. RS 278-1(9)30, October 1994.

[24] Warhank, Josef J., Historical Survey Reviewer, State Historic Preservation Office, Montana Historical Society, letter dated 28 February 1995. See Appendix B.

[25] Lara M. Dando, Solid and Hazardous Waste Specialist, Solid Waste Program, Waste Management Division, Montana Department of Health and Environmental Sciences, letter dated 09 August 1994.

4.16. CONSTRUCTION

Construction related activities will result in some short-term adverse impacts which cannot be avoided. These impacts will be temporary and should last only for the duration of construction activities. These impacts include:

- emissions from asphalt plants and crushers,
- dust from construction equipment activities,
- increased noise levels from construction equipment,
- potential for erosion from fresh cut and fill slopes,
- inconvenience to highway users resulting from delays, detours and temporary surfacing.

Air quality permits from the Air Quality Division of the Montana Department of Environmental Quality will be required for asphalt plants and crushers. Dust will be controlled by watering or temporary surfacing.

Construction related erosion impacts will be avoided using methods outlined in Section 4.10. WATER QUALITY.

As requested by the U.S. Environmental Protection Agency, all appropriate pollution and erosion control measures will be provided for during project design. These measures will be implemented during construction to assure protection of water quality and aquatic habitat. These measures will include erosion control measures outlined in Section 4.10.3.

In some areas, underground springs are near the surface and will be affected by excavation. In these areas, sub-drainage systems will be constructed to convey the water away from the roadway structure.

Traffic will be maintained through the proposed project during construction -- a traffic control plan will be developed to maximize safety and minimize inconvenience to motorists. The plan will designate how traffic will be maintained through construction areas. It is anticipated that traffic will generally be maintained on one side of the newly constructed roadway while construction occurs on the opposite side. As each phase of construction is completed, the traffic will be shifted to the opposite side to allow completion of the next phase. Where culverts are constructed, it will be necessary to construct a portion of the culvert while traffic is maintained over the existing culvert. Traffic will then be shifted to the roadway over the new culvert while the existing culvert is removed and replaced with the remainder of the new culvert.

The Contractor will be required to work with cattle ranchers to adjust the work schedule and coordinate and accommodate cattle drives through the construction area during the spring and fall.

It is anticipated that most delays and inconveniences will occur during one construction season. Most excavation, embankment, pipe culvert installation, and possibly asphalt surfacing will be constructed during the first construction season. These are the major items that affect highway traffic and will cause the most delays.

Delays of up to 15 minutes will occur frequently during this first year to allow one-way traffic through narrow construction areas and to allow clearance and passage of trucks and other construction equipment. Few longer delays are anticipated and will not be allowed except where necessary and only when requested several days in advance by the construction contractor. When these extended delays are anticipated, they will be advertised in advance using the local news media. They will be scheduled to avoid high traffic use periods such as morning and evening periods when people are traveling to and from work and school.

During the second season, it is anticipated that asphalt pavement (if not completed during the first season), seal coats, signing, and striping will be completed. These items will cause only brief, if any, interruptions in the flow of traffic.

Gravel and borrow sources for base and surfacing aggregates will be identified near the project area. Borrow material removal and gravel pits will be subject to applicable rules and regulations of the Montana Open Cut Mining Act; a mine reclamation plan will be required.

No construction related impacts or costs will occur with the No-Action Alternative. However, because of the deteriorating condition of the existing pavement and base courses, future maintenance costs are expected to be higher.

4.17. ENERGY AND COMMITMENT OF RESOURCES

Construction of any of the proposed alternatives will improve traffic operations and efficiency by providing better alignments, wider roadway and more roadway capacity. This improvement in efficiency and traffic operations will result in fuel savings and a decrease in vehicle wear. The long-term effect of the proposed project should therefore be a decrease in energy use.

Implementation of the proposed action involves a commitment of a range of natural, physical. human and fiscal resources. Land used in the construction of the proposed facility is considered an irreversible commitment during the time period that the land is used for a highway facility. However, if a greater need arises for use of the land or if the highway facility is no longer needed, the land can be converted to another use. At present, there is no reason to believe such a conversion will ever be necessary or desirable.

Considerable amounts of fossil fuels, labor and highway construction materials such as cement, aggregate and bituminous material will be expended. Additionally, large amounts of labor and natural resources will be used in the fabrication and preparation of construction materials. These materials are generally not retrievable. However, they are not in short supply and their use will not have an adverse effect upon continued availability of these resources.

The commitment of these resources is based on the concept that residents in the immediate area, State and region will benefit by the improved quality of the transportation system. These

benefits will consist of improved accessibility and safety, savings in time and greater availability of quality services which are anticipated to outweigh the commitment of these resources.

The No-Action Alternative will not improve highway operation and efficiency and will therefore provide no long-term decrease in energy use. The No-Action Alternative will require no commitment of resources.

4.18. ENVIRONMENTAL JUSTICE

There are no known communities or concentrations of minorities in the project area, and no households or businesses will require relocation. Acquisition of additional right-of-way required for the Preferred Alternative will not affect existing farming and ranching operations and will therefore not affect employment. Right-of-way will be acquired from several different landowners and will not disproportionately affect any particular minority group. Existing recreational opportunities will not be adversely impacted.

The Preferred Alternative or the No-Action Alternative will not adversely affect any minority or disadvantaged group.

The Preferred Alternative is in compliance with Environmental Justice Executive Order 12898 and Title VI of the Civil Rights Act of 1964.

4.19. PERMITS

In accordance with the Montana Pollutant Discharge Elimination System (MPDES) regulations, a storm water discharge permit will be required prior to construction.

In accordance with Section 404 of the Clean Water Act, a Section 404 permit will be required prior to construction.

A Stream Protection Act (SPA) permit will be required from the Montana Department of Fish, Wildlife and Parks.

A Special Use Permit authorizing construction will be needed on National Forest System lands for all areas involved in the project but outside the designated right-of-way.

A "Beneficial Water Use Permit" will be required before water from any surface water source may be used[26].

4.20. SECONDARY AND CUMULATIVE IMPACTS

A number of other activities may contribute to cumulative impacts, especially to wildlife and social concerns. These activities include: improvement of the Pioneer Mountains Scenic Byway in the upper Grasshopper Valley, subdivision and land development in the Upper Grasshopper Valley, timber harvest activity along the Big Hole Divide on State and National Forest System

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[26] Massman, Carole I., Administrative Officer, Montana Department of Natural Resources and Conservation, Letter dated 09 July 1987.

lands, expansion of Maverick Mountain Ski Hill, increased elk populations and increased hunting and general recreation activities. None of these activities may individually have significant impacts; there is a cumulative impact of undetermined significance.

The proposed Carroll Hill - East and West highway project does not contribute significantly to cumulative impacts because it does not substantially change current land use or involve substantial secondary impacts.

5. COMMENTS AND COORDINATION

Coordination efforts were initiated by Beaverhead County on 03 August 1994 when a notice of intent was issued by the Department to federal, state and local agencies and affected private organizations and individuals. Comments and information were requested which would be relevant to this project. Copies of responses received are included in Appendix B.

Because, as indicated in Section 4.6., a substantial amount of new right-of-way will be required from National Forest System land, careful coordination has occurred with that agency. Copies of comments and information received from the USFS are included in Appendix B. Other agencies that have provided comments, included in Appendix B, are:

Waste Management Division, Solid Waste Program
MT Dept. of Health and Environmental Sciences
Helena, MT

Beaverhead County High School
Dillon, MT

USDA-Forest Service,
Beaverhead-Deerlodge National Forest,
Dillon Ranger District
Dillon, MT

Corp of Engineers, Omaha District
Department of the Army
Omaha, NE

MT Dept. of Fish, Wildlife & Parks
Helena, MT

U.S. Dept. of the Interior
Fish and Wildlife Service
Helena, MT

A public scoping meeting was held on 13 July 1995. A summary of the meeting is included in Appendix C.

This environmental assessment (EA) was completed and approved by Beaverhead County, the Montana Department of Transportation and the Federal Highway Administration. The EA has been sent to federal, state and local agencies and to other interested individuals who are known to have an interest in the proposed project.

A location and design public hearing will be held if requested.

After the hearing (if requested) and after written comments have been received, necessary revisions to this EA will be made and it will be reviewed by Beaverhead County, the Montana Department of Transportation, the Federal Highway Administration and the USFS[28]. If it is determined by these agencies that the proposed project will cause no significant impacts, a "finding of no significant impact" (FONSI) will be prepared by FHWA. If it is determined that the proposed project will cause significant impacts, an environmental impact statement (EIS) will be prepared.

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[28] Throughout this document, USFS means USDA-Forest Service, Beaverhead-Deerlodge National Forest, Dillon Ranger District.

5.1. PERMITS, LICENSES AND OTHER AUTHORIZATIONS REQUIRED

Montana Department of Environmental Quality	Storm Water Discharge Permit for Construction Activities
U.S. Army, Corps of Engineers	Section 404 Permit
Montana Department of Fish, Wildlife and Parks	Stream Protection Act Permit
U.S. Forest Service	Special Use Permit
Montana Department of Natural Resources and Conservation	Beneficial Water Use Permit

6. LIST OF PREPARERS

This document was prepared by Morrison-Maierle, Inc., Helena, MT, with assistance from the following subcontractors:

Lisa Schassberger Roe, Botanist
Helena, MT

GCM Services, Inc.
Butte, MT

Morrison-Maierle Environmental Corporation
Helena, MT

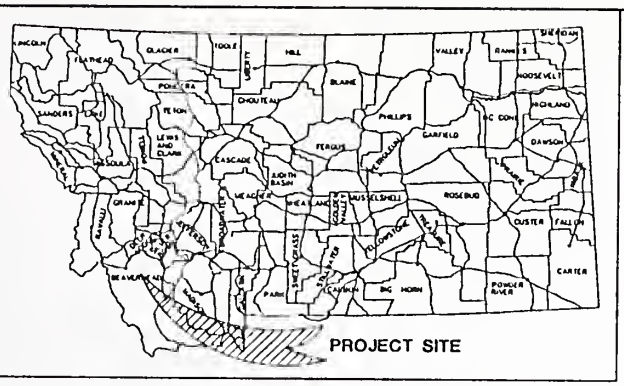
Assistance was also provided by the following agencies:

Beaverhead County
Dillon, MT

Montana Department of Transportation
Helena & Butte, MT

USDA-Forest Service, Beaverhead-Deerlodge National Forest, Dillon Ranger District
Dillon, MT

APPENDIX A - WETLAND LOCATIONS



MONTANA DEPARTMENT OF TRANSPORTATION

FEDERAL AID PROJECT NO. STPS 278-1(9)30
GRADE, GRAVEL & PLANT MIX SURFACING
CARROLL HILL - EAST & WEST
BEAVERHEAD COUNTY

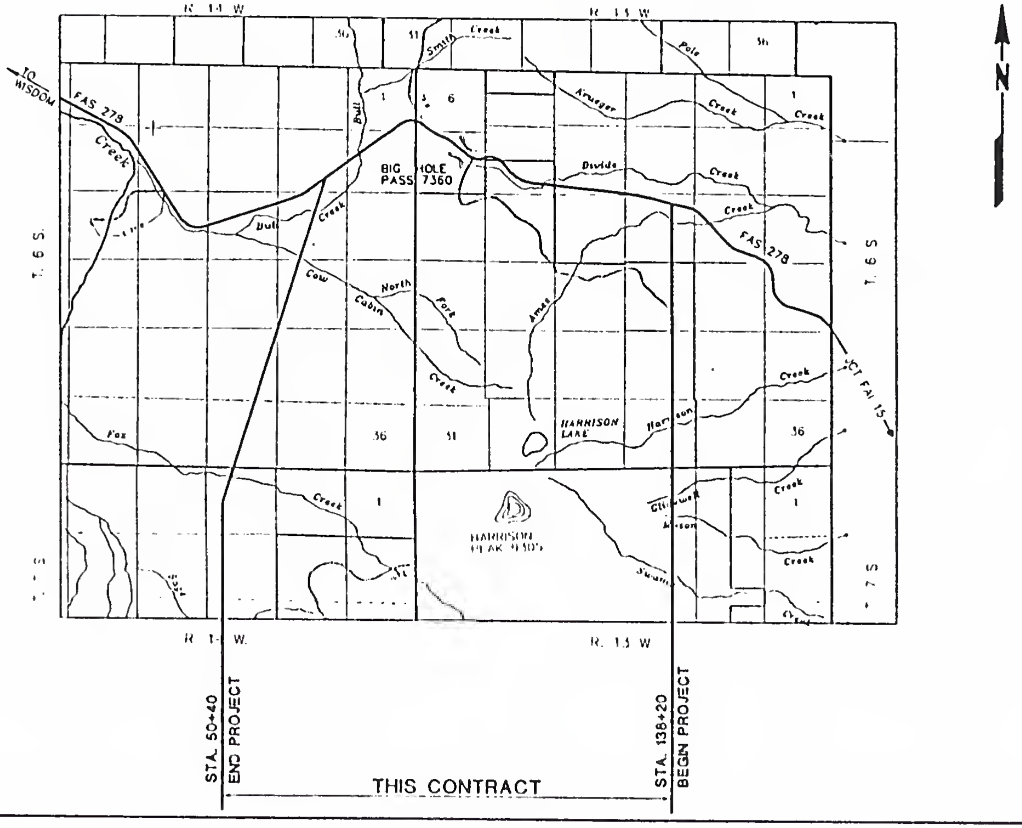
LENGTH 8.78 KILOMETERS

SCALES
VERTICAL : 1 : 200
HORIZONTAL: 1 : 1000
CROSS SECTION - HORIZONTAL & VERTICAL: 1 : 100
REDUCED PRINTS APPROXIMATELY 1 / 2 ORIGINAL SCALE

DESIGN DATA

1992 ADT = 36D
2D16 ADT = 45D
DHV = 72
D = 55-45%
T = 10 3%
V = 9D km/h
ALL TRUCKS = 61.2%
8186 kg ESAL'S = 23 9 Daily

LETTING DATE - ____________



PRELIMINARY
13 JULY 1995
PRELIMINARY ALIGNMENT REVIEW

MONTANA
DEPARTMENT OF TRANSPORTATION

APPROVED :
____________ 19 ____
MARVIN DYE
DIRECTOR OF TRANSPORTATION

BY ____________
PRECONSTRUCTION ENGINEER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED :
____________ ____________
DIVISION ADMINISTRATOR DATE

RELATED PROJECTS

ASSOCIATED PROJECT AGREEMENT NUMBERS	
R/W & IC	
PE	

MONTANA DEPARTMENT OF TRANSPORTATION
MONTANA CADD

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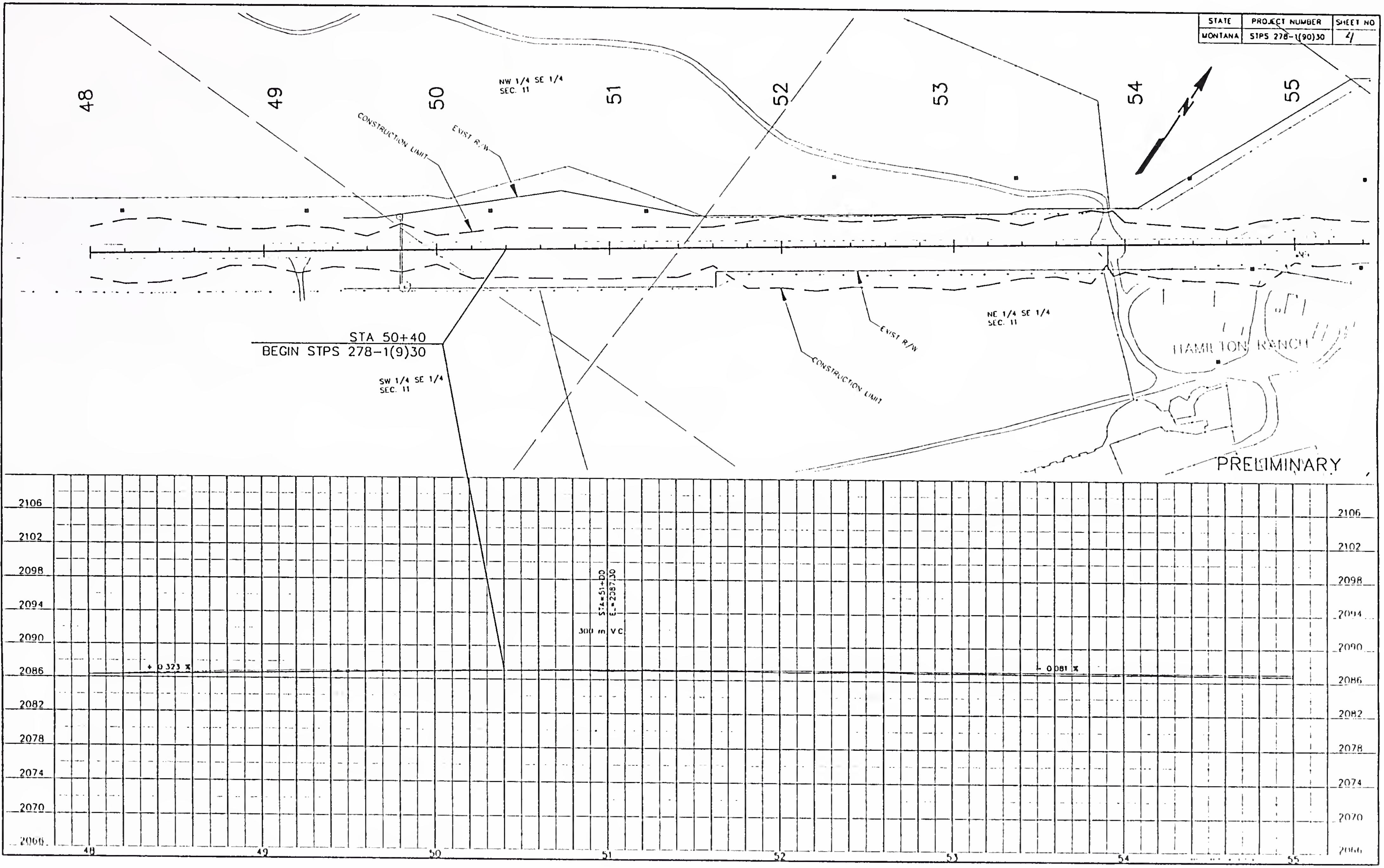

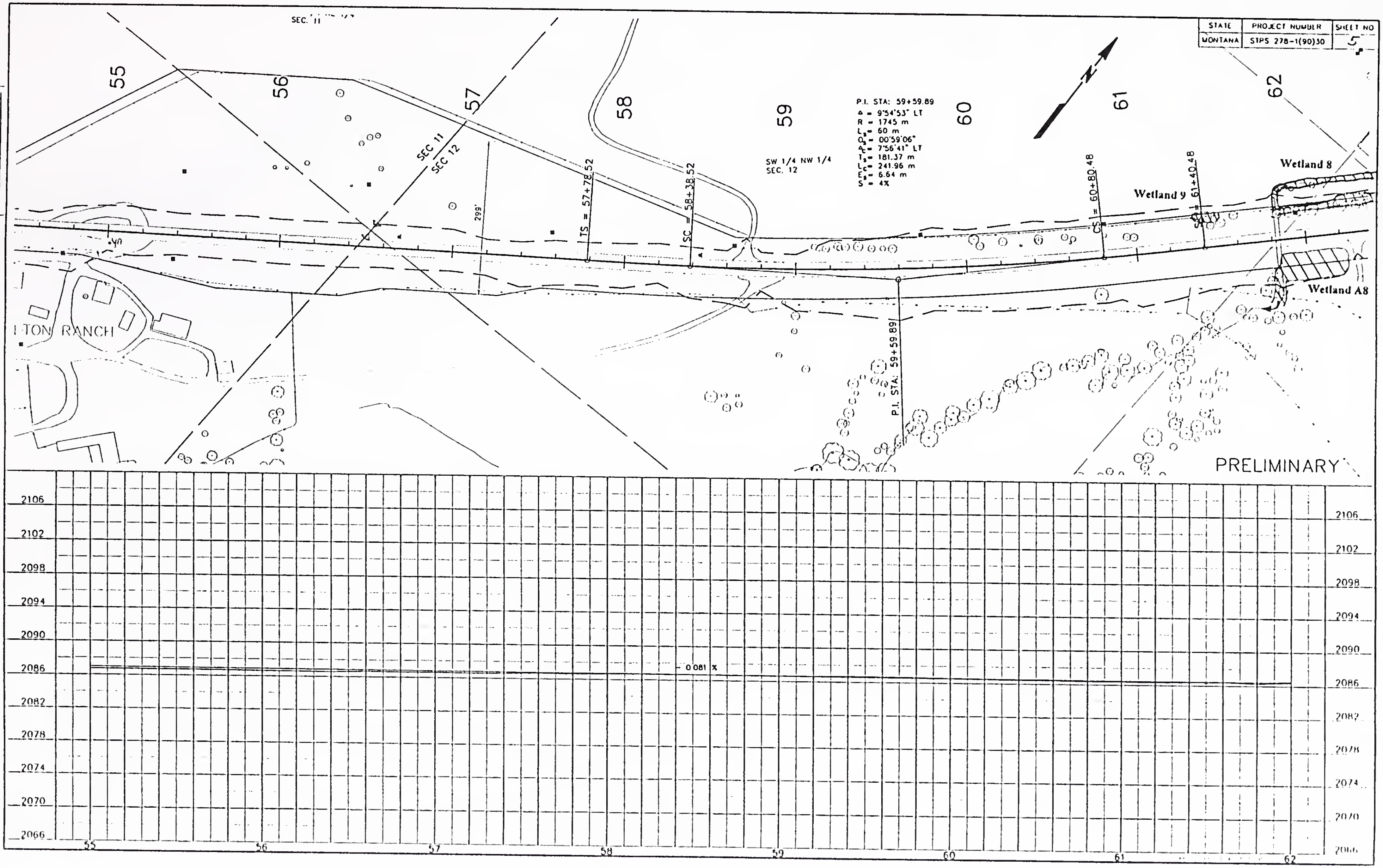

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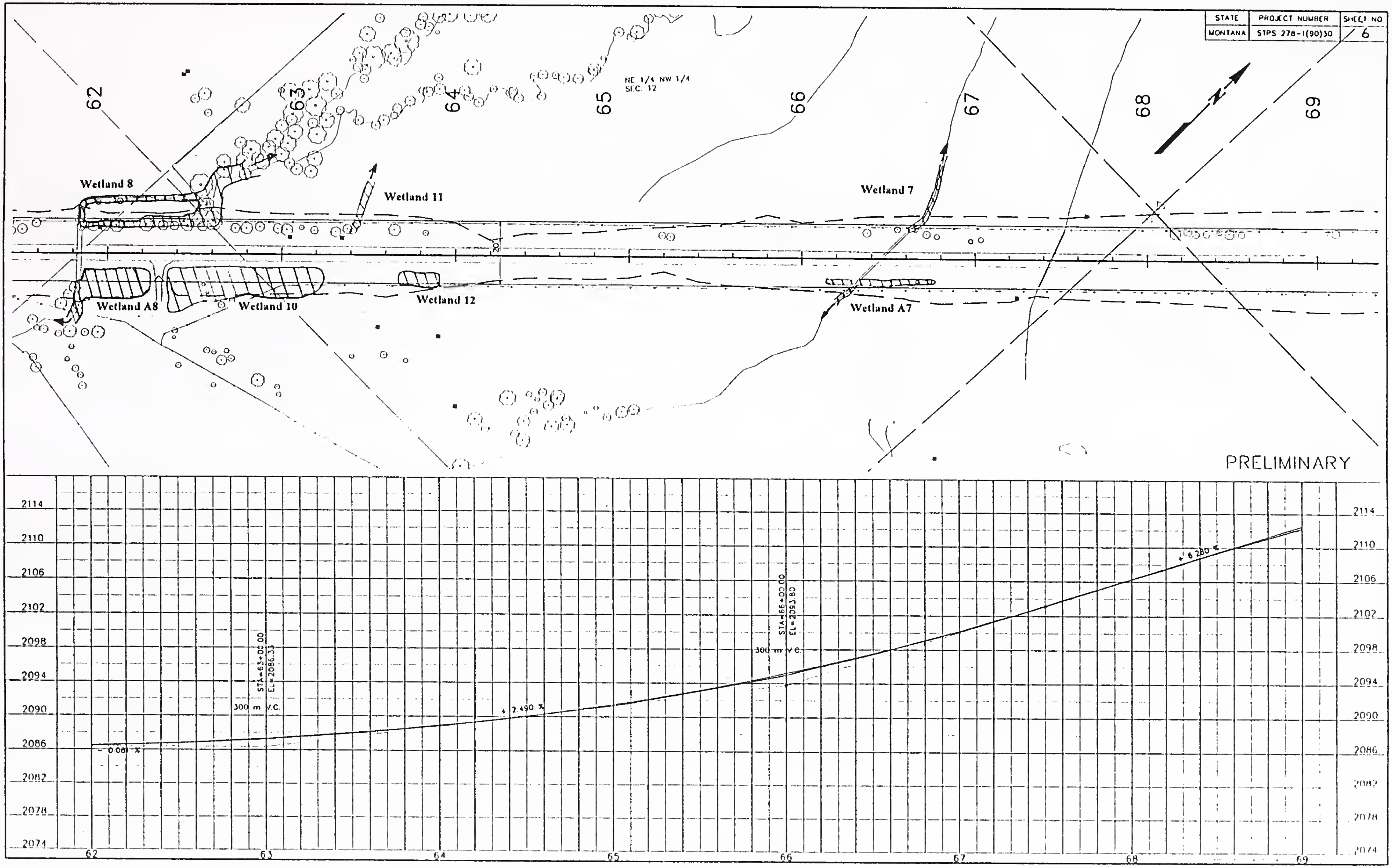

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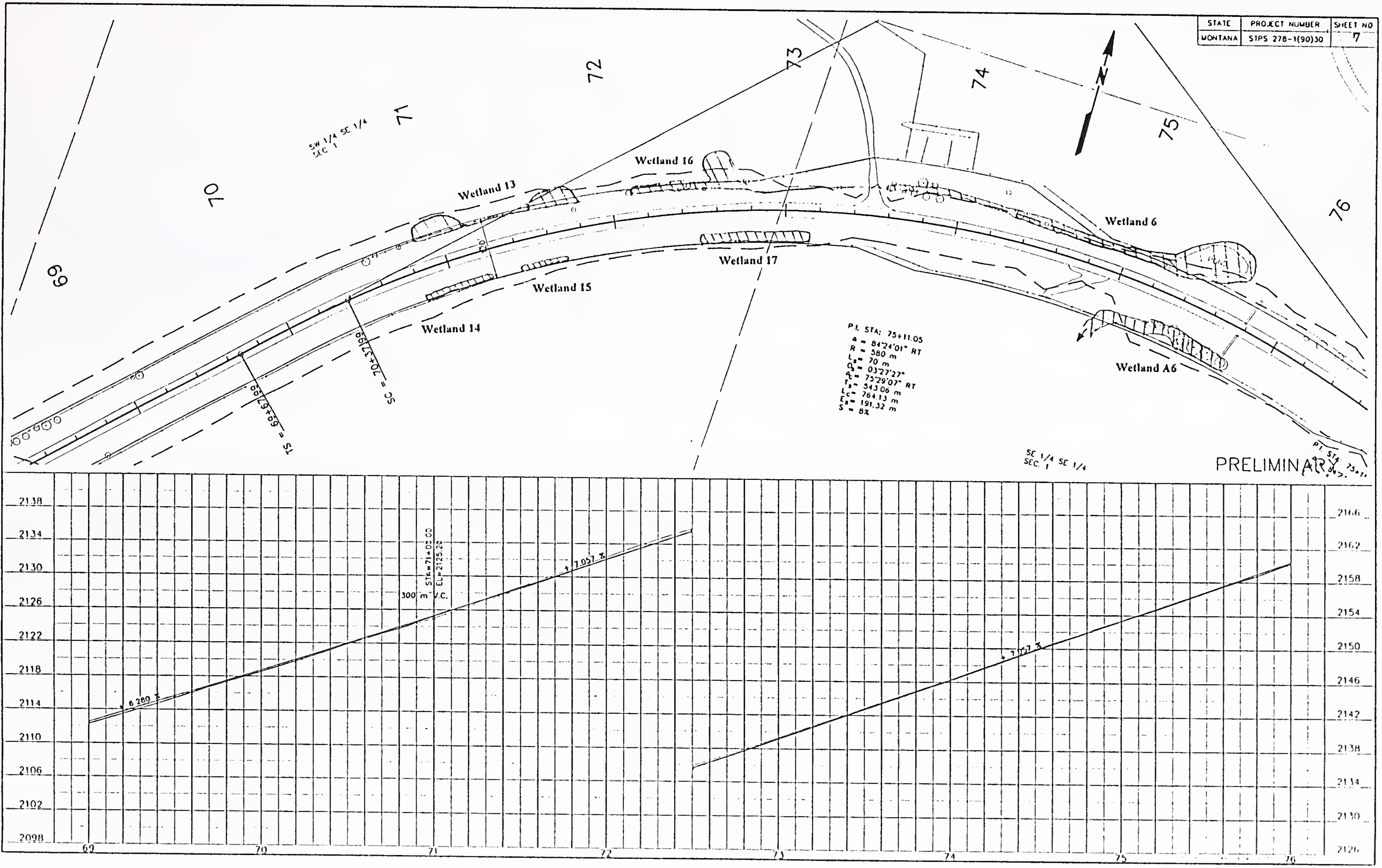

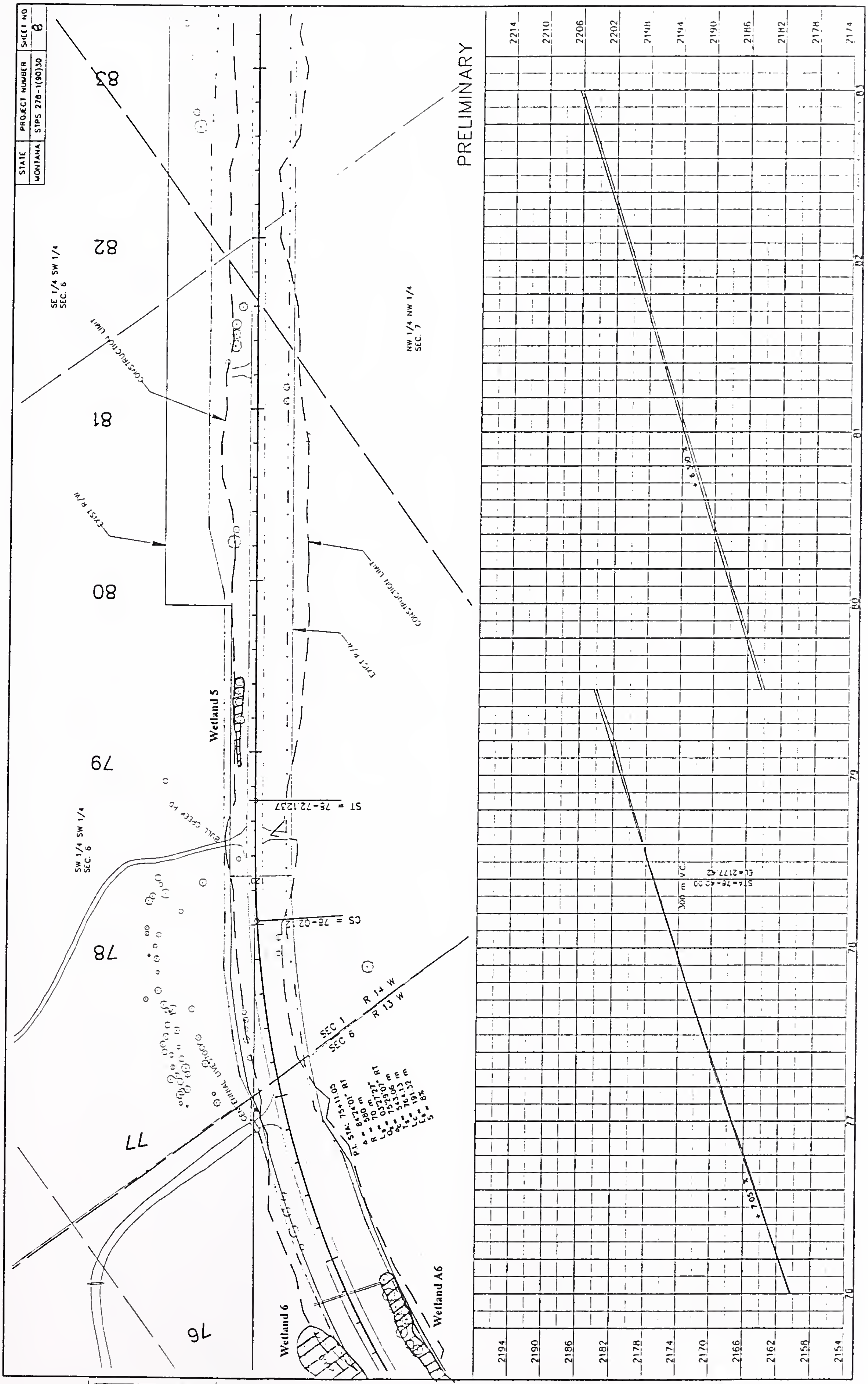
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STPS 278-1(90)30
SHEET NO
8
PRELIMINARY
76
77
78
79
80
81
82
83
SE 1/4 SW 1/4 SEC. 6
SW 1/4 SW 1/4 SEC. 6
NW 1/4 NW 1/4 SEC. 7
CONSTRUCTION LIMIT
EXIST R/W
Wetland 5
Wetland 6
Wetland A6
BULL CREEK RD
CENTENNIAL LIVESTOCK
ST = 78+72.1237
CS = 78+02.12
SEC 1
SEC 6
R 14 W
R 13 W
P.I. STA: 75+11.05
Δ = 84°24'01" RT
R = 580 m
Ls = 70 m
θs = 03°27'27" RT
Δc = 75°29'07" m
Ts = 543.06 m
Lc = 764.13 m
Es = 191.32
S = 8%
STA=78+42.00
EL=2177.42
300 m VC
+ 7.05 %
+ 6.90 %
2214
2210
2206
2202
2198
2194
2190
2186
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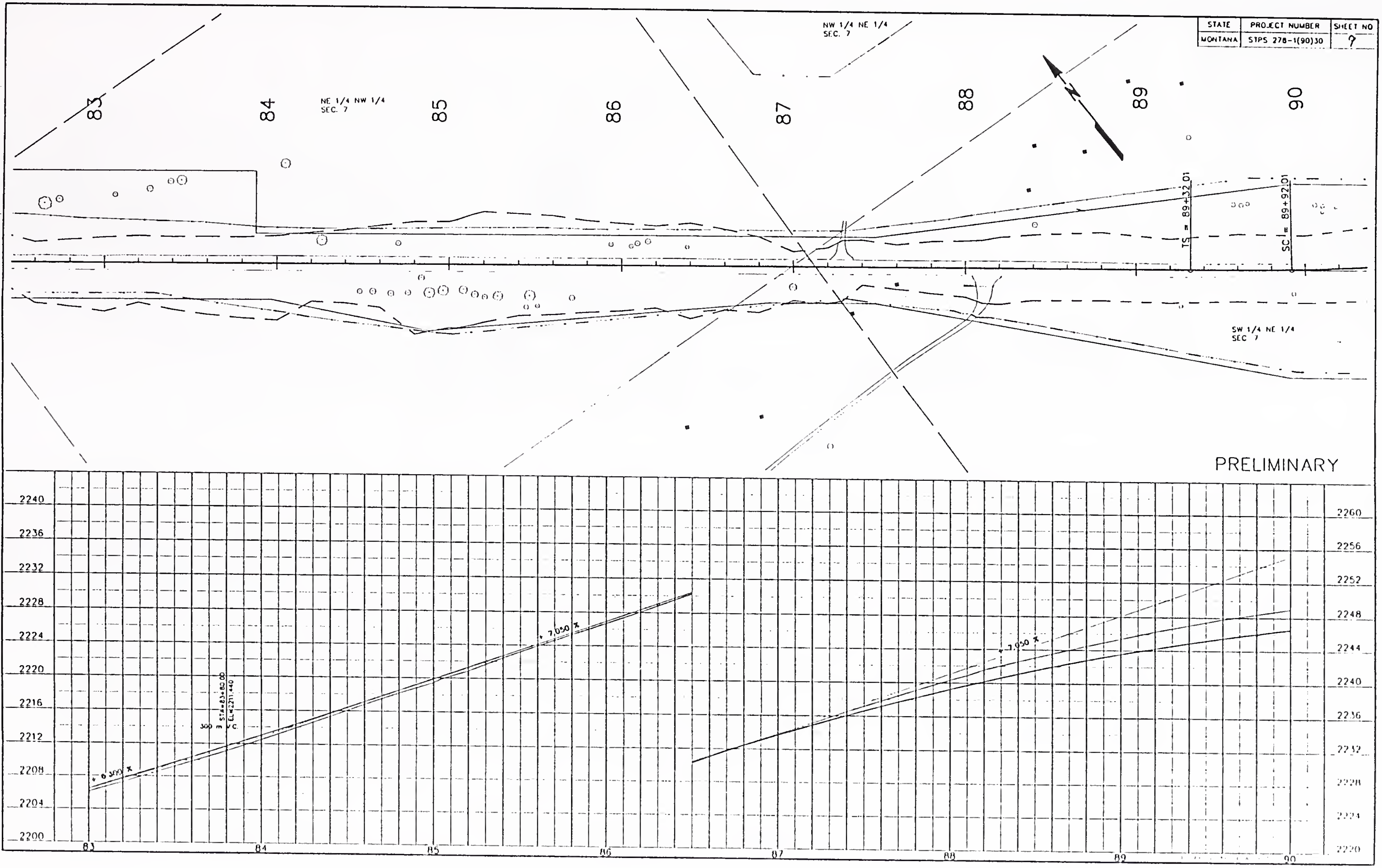

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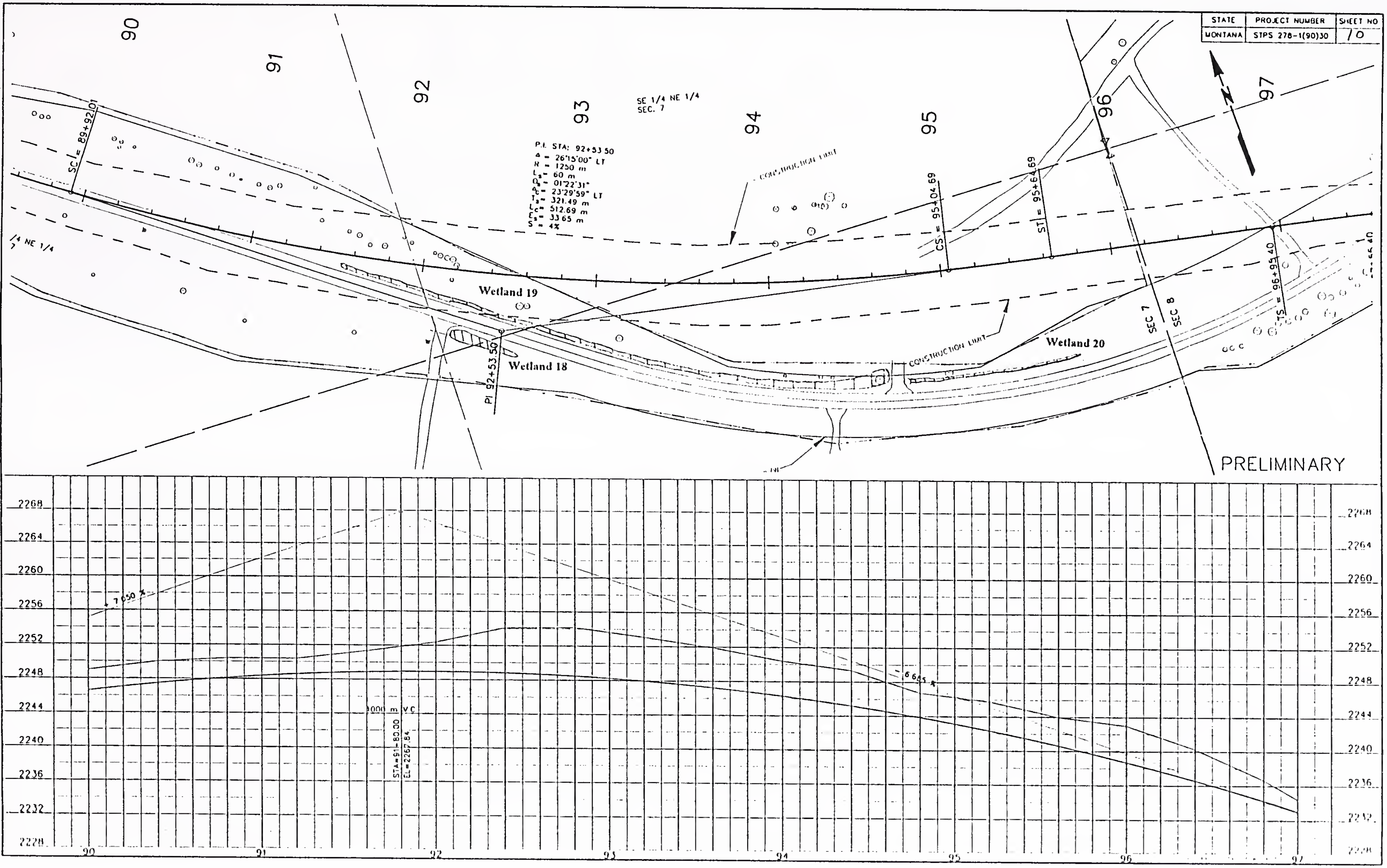

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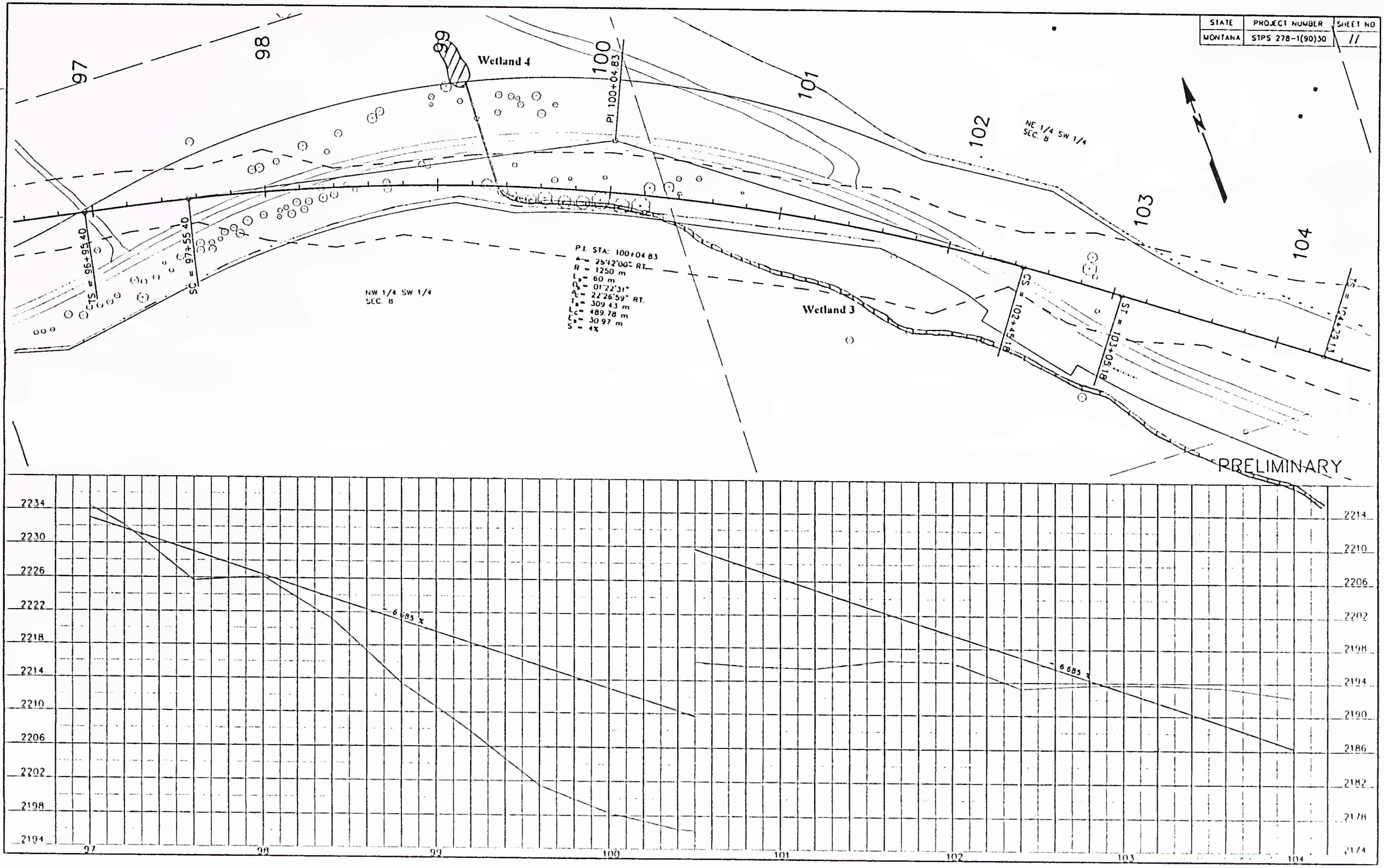

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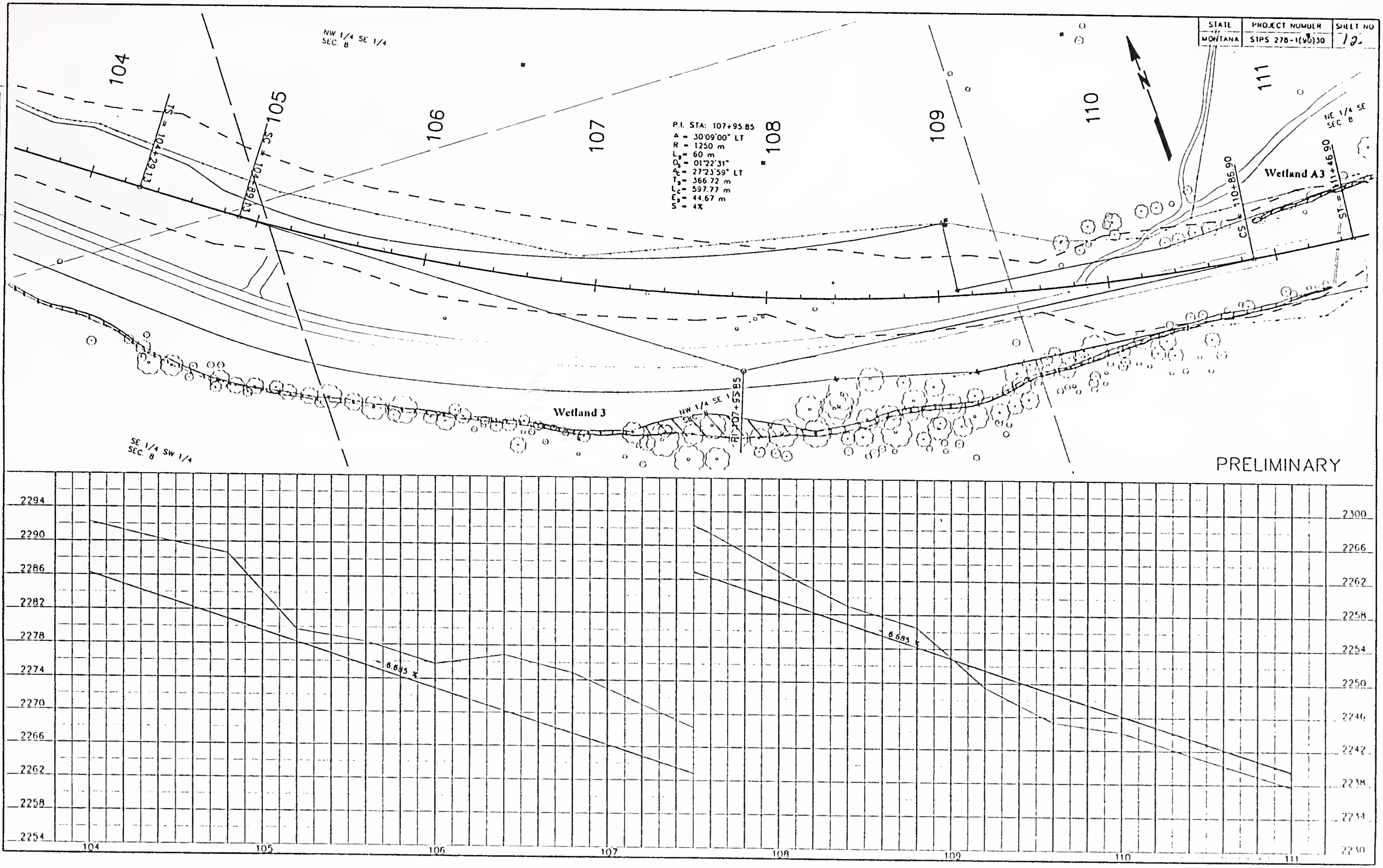
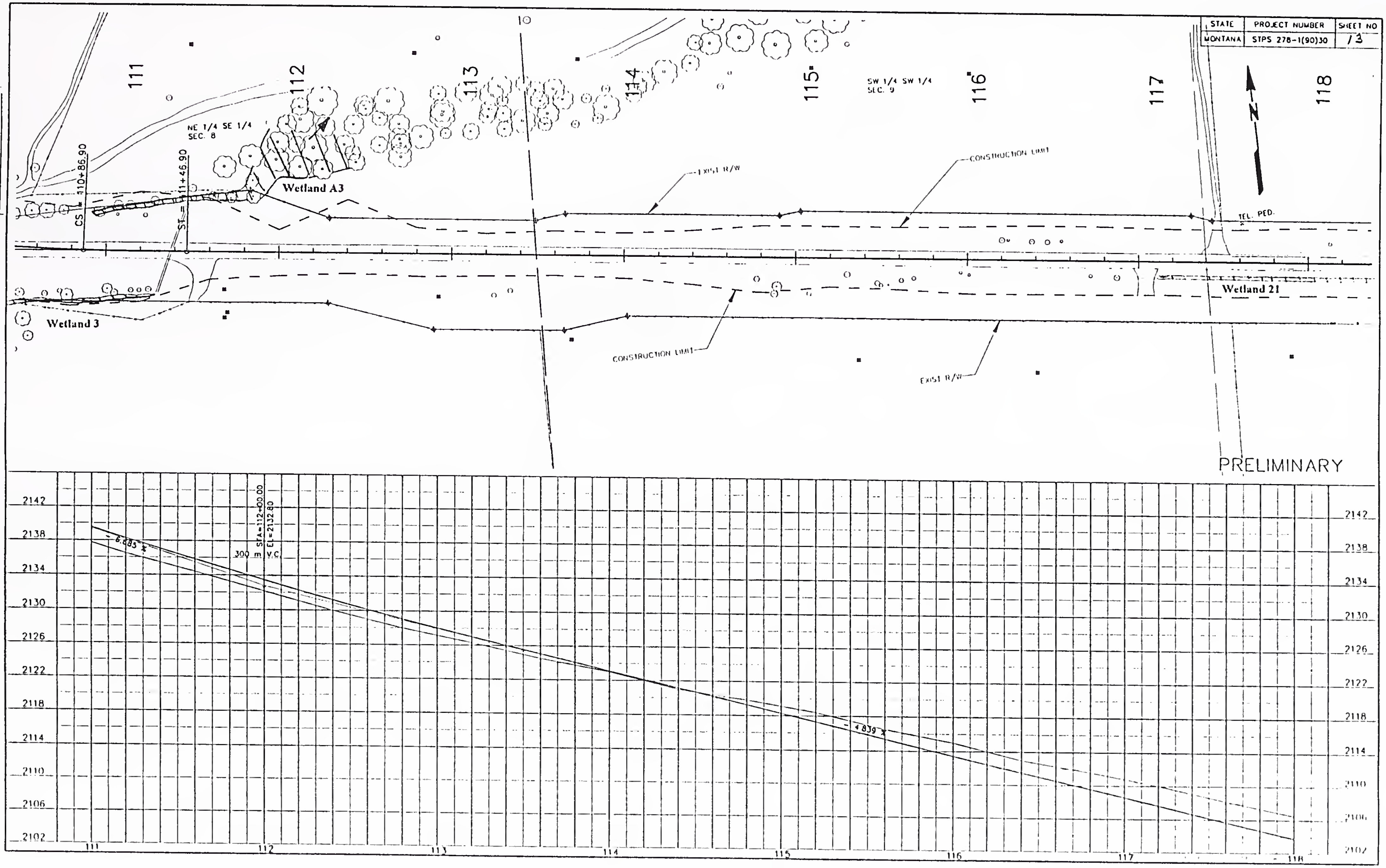


P.I. STA: 107+95.85
Δ = 30°09'00" LT
R = 1250 m
L_s = 60 m
Q_s = 01°22'31"
$Δ_c$ = 27°23'59" LT
T_s = 366.72 m
L_c = 597.77 m
E_s = 44.67 m
S = 4%

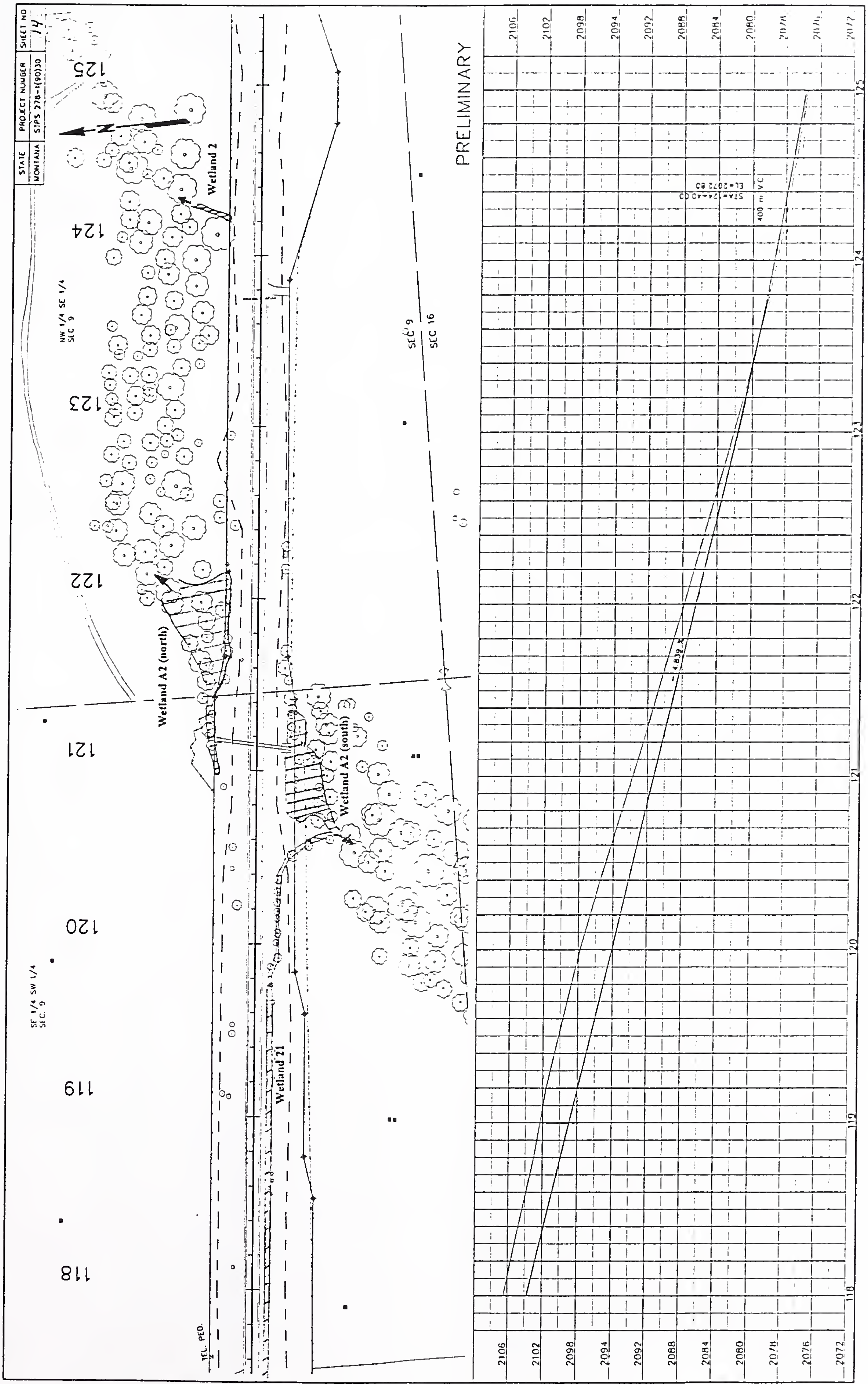
MONTANA DEPARTMENT OF TRANSPORTATION

MONTANA CADD

STATE	PROJECT NUMBER	SHEET NO
MONTANA	STPS 278-1(90)30	73



MONTANA DEPARTMENT OF TRANSPORTATION
MONTANA CADD


STATE
MONTANA
PROJECT NUMBER
STPS 278-1(90)30
SHEET NO
14
PRELIMINARY
Wetland 2
Wetland A2 (north)
Wetland A2 (south)
Wetland 21
NW 1/4 SE 1/4
SEC 9
SE 1/4 SW 1/4
SEC. 9
SEC 9
SEC 16
TEL. PED.
118
119
120
121
122
123
124
125
STA=124+40.00
EL=2072.80
400 m VC
4.839 %
2106
2102
2098
2094
2092
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2076
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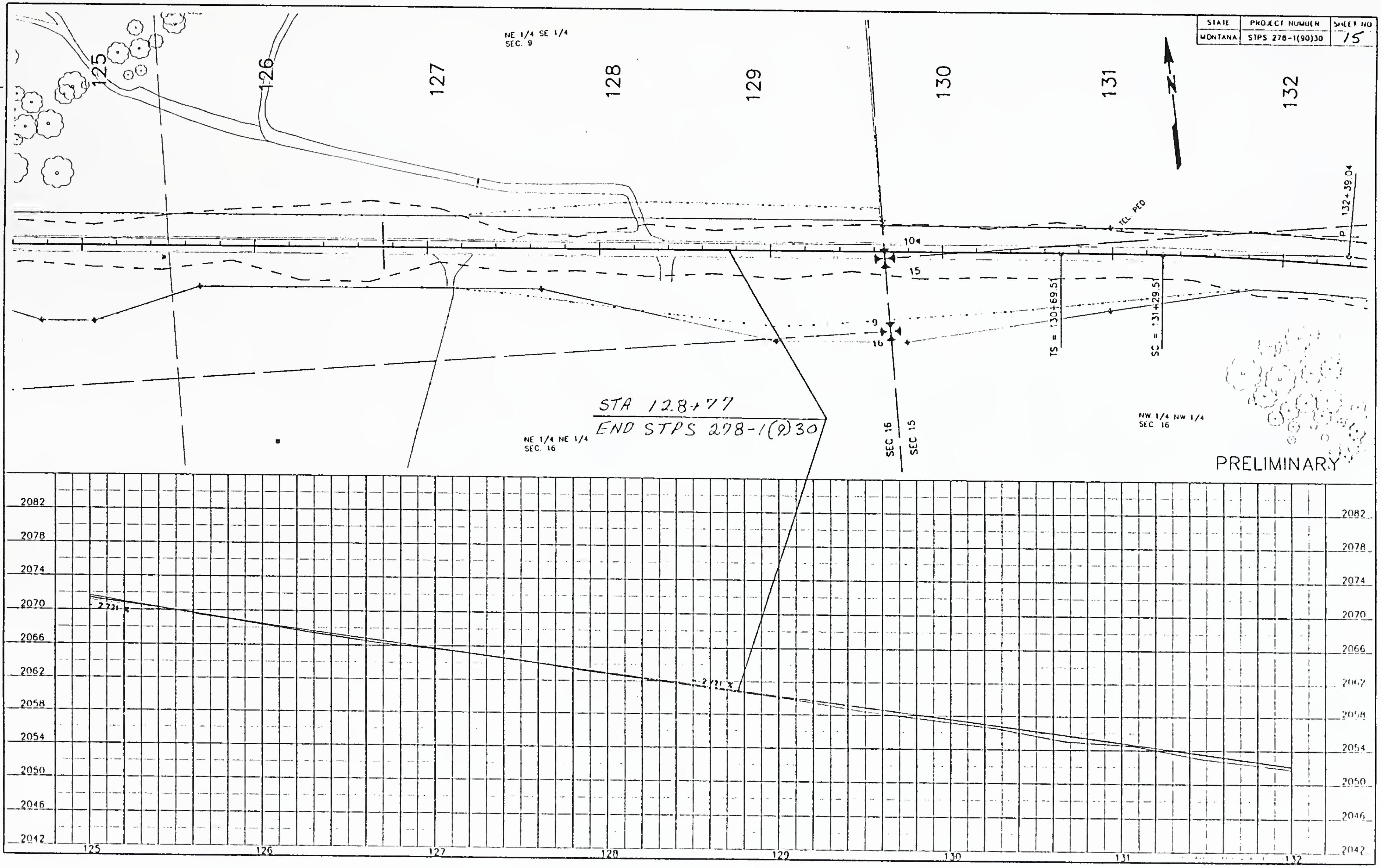
STATE	PROJECT NUMBER	SHEET NO
MONTANA	STPS 278-1(90)30	15



APPENDIX B - PUBLIC AND AGENCY COMMENTS RECEIVED

DEPARTMENT OF
HEALTH AND ENVIRONMENTAL SCIENCES
Waste Management Division
Solid Waste Program
406/444-1430
FAX # (406) ~~444~~-1499
STATE OF MONTANA
OFFICE LOCATION: 2209 PHOENIX AVE. HELENA, MONTANA
MAILING ADDRESS: PO BOX 200901 HELENA, MT 59620-0901

August 9, 1994

RECEIVED
AUG 11 1994
MORRISON-MAIERLE/CSSA, INC.

Brad Peterson
Project Manager
Morrison-Maierle/CSSA
Box 6147
Helena, Montana 59604

SUBJECT: Beaverhead County Proposed Transportation Project, FAS 278

Dear Mr. Peterson:

I have reviewed the information submitted to this office concerning the improvement of 5.4 miles of Federal Aid Secondary Highway 278 between Dillon and the Jackson/Wisdom area. Based on what was submitted, I would like to make the following comments and recommendations:

- All group II material generated during the construction process, such as waste piping, concrete, and asphalt, should be reused, recycled, and/or disposed of in a licensed Class II (municipal) landfill or incinerator. The Montana Solid Waste Program (SWP) recommends recrushing old asphalt for reuse purposes. Due to the high cost of landfill disposal, many construction companies have found that it is more economical to reuse the asphalt.

  The Dillon Class II Landfill is licensed to take waste from such a project as this with minimum impact to its normal operating procedures. The SWP recommends getting the operator's approval before taking material to any disposal site.

- Untreated wood waste and rebar-free concrete are considered group III material and should be reused, recycled, and/or disposed of in either a licensed Class II or Class III landfill.

- Clean fill, such as soil, dirt, sand, gravel, rocks, and rebar-free concrete leftover from this project, does not have to be placed in a licensed Class II or III landfill if it is emplaced free of charge to the person placing the fill. The clean fill has to be used to adjust or create topographic irregularities for agricultural or construction purposes (Administrative Rules of Montana 16.14.502(6)).

"AN EQUAL OPPORTUNITY EMPLOYER"

- The SWP recommends purchasing only the amount of paint, thinners, etc., needed to get the job done. Excess material may be difficult to reuse or dispose of. If extra paint, thinners, etc., are generated, try reusing them, giving them away, or recycling them, rather than trying to dispose of them. According to the ARM 16.44.402, generators are required to inventory and dispose of their waste in an appropriate manner. If the waste is deemed hazardous, for example solvents that contain high levels of lead, it is required to be treated as such. Two exceptions to ARM 16.44.402 are waste generated by conditionally exempt small quantity generators and by homeowners (ARM 16.44.304(2)(a)). I have included some information on hazardous waste generators for your information. The Montana Hazardous Waste Program (HWP) (444-1430) should be contacted, if there are any specific questions.

- If any suspicious material is found during this project, the HWP should be contacted immediately.

- For safety purposes, the county should consider developing a contingency plan outlining how the applicant will handle potential situations where unknown material is found, who should be called, personal protection, appropriate response, etc.

Thank you for the opportunity to comment on this project. If you have any questions or comments, please feel free to give me a call.

Sincerely,

Lara M. Dando

Lara M. Dando
Solid and Hazardous Waste Specialist

cc: Beaverhead County Commissioners, 2 South Pacific St., Dillon, MT 59725-2799

Enclosure: CESQG Booklet

F:\USR\CB5405\WP\LETTERS.94\REVIEWS\BEAVERCO.MDT

RECEIVED
AUG 17 1994
MORRISON—MAIERLE/CSSA, INC.

BEAVERHEAD COUNTY HIGH SCHOOL
DILLON MONTANA
59725
104 NORTH PACIFIC
PHONE 406/683-2361

August 16, 1994

Brad Peterson, Project Manager
Morrison-Maierle/CSSA
Box 6147
Helena, MT 59604

Mr. Peterson:

As per your letter dated August 1, 1994, concerning the 5.4 mile Highway 278 project, Beaverhead County High School would like to request guardrail's be placed in appropriate areas. Further, our seven trustees fully support the construction as we have a school bus that travels from Wisdom to Dillon and back each school day.

Thank you for the opportunity to respond.
Looking forward to your response.

Sincerely,
Dennis Kimzey
Dennis Kimzey, Supt.
B.C.H.S.

cc: Spencer Hegstad, Chairman Beaverhead County Commissioners
B.C.H.S. Board of Trustees

2027.002 Q

Hamilton Ranch
300 Park Boulevard
Itasca, Illinios 60143
August 16, 1994

708 - 250 - [illegible]

RECEIVED
AUG 19 1994
MORRISON—MAIERLE/CSSA, INC

Sue Yoney

Mr. Brad Peterson, Project Manager
Morrison-Maierle/CSSA
Box 6147
Helena, Mt 59604

Re: Proposed Teransportation Project, FAS 278
Carroll Hill-East and West RS278-1(9)30

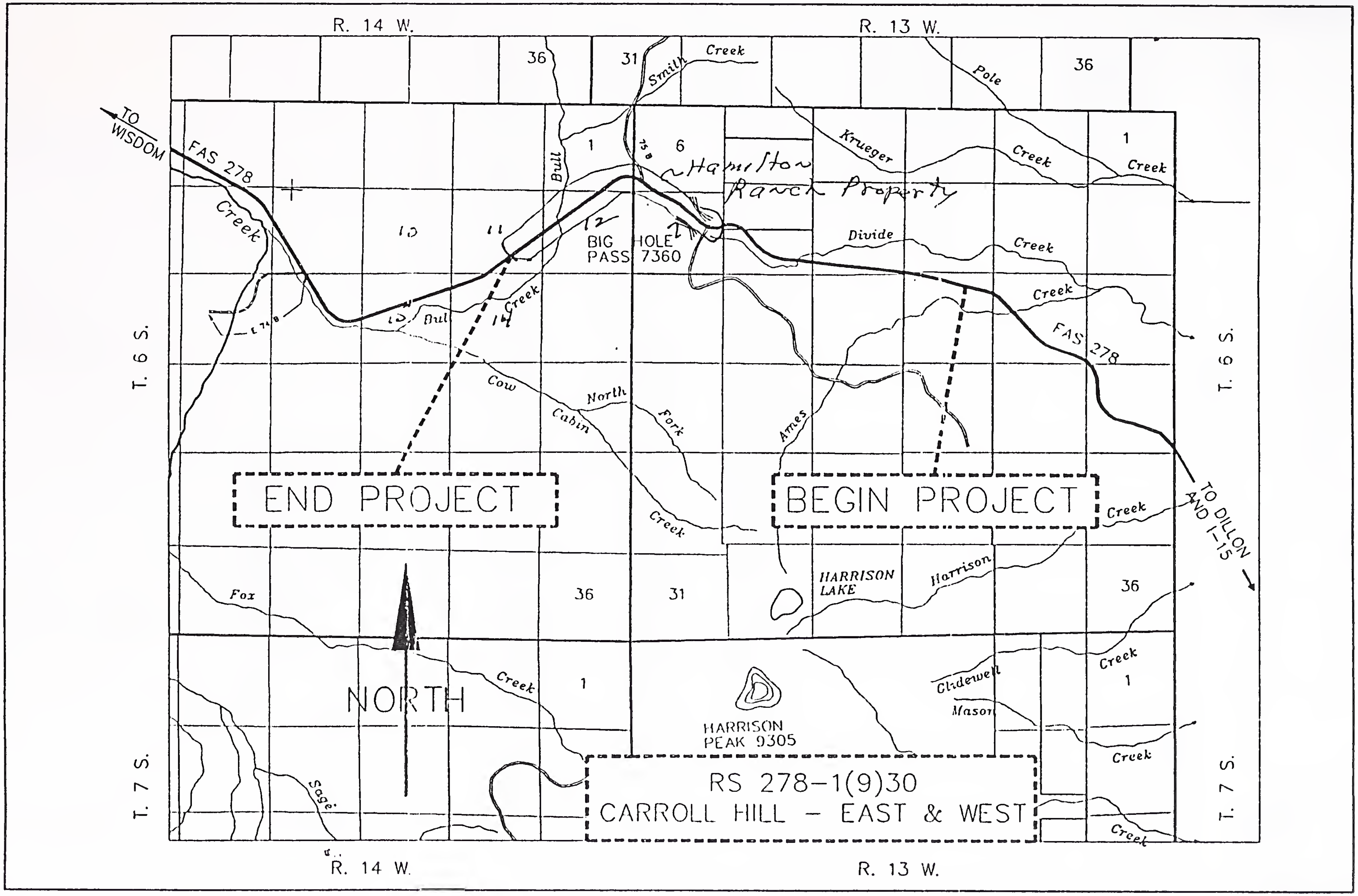
Dear Mr. Peterson:

Enclosed is a copy of your map with that portion of the above referenced project adjacent to our property highlighted in yellow.

Would you please send me a copy of the geometrics of the section through our property when they are developed. I doubt if I will have a problem with the contemplated improvements, but I would like to know the new alignment, etc.

Yours very truly,

Allan J. Hamilton


RS 278-1(9)30
CARROLL HILL - EAST & WEST

DEPARTMENT OF DEFENSE
UNITED STATES OF AMERICA

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
215 NORTH 17TH STREET
OMAHA, NEBRASKA 68102-4978

REPLY TO
ATTENTION OF

August 24, 1994

U.S. Army Corps of Engineers
1520 East 6th Avenue
Helena, MT 59620-2301
(406)444-6670

RECEIVED
AUG 25 1994
MORRISON—MAIERLE/CSSA, INC

Brad Peterson
MorrisonMaierle/CSSA
P.O.Box 6147
910 Helena Avenue
Helena, Montana 59604

Dear Mr. Peterson:

Reference is made to your letter soliciting comments concerning the proposed 5.4 mile road improvements of Federal Aid Secondary Highway 278 between Dillon and the Jackson/Wisdom area in Montana.

Under the authority of Section 404 of the Clean Water Act, Department of the Army permits are required for the placement of dredged or fill material below the ordinary high water mark of our nation's rivers, streams, lakes or in wetlands.

From our cursory review of the limited information presented, it appears there will be some stream crossings and possibly some wetlands impacts associated with the road improvement project which may require a Department of the Army permit.

If you have any questions, please let me know.

Sincerely,

Robert E. McInerney

Robert E. McInerney
State Supervisor,
Helena Regulatory Office

United States
Department of
Agriculture

Forest
Service

Beaverhead
National Forest
Dillon R.D.

420 Barrett
Dillon, MT 59725
406/683-3900

Reply to: 2730

Date: OCT 05 1994

RECEIVED
OCT - 7 1994
MORRISON—MAIERLE/CSSA, INC

Mr. Brad Peterson, P.E. Project Manager
P.O. Box 6147
910 Helena Avenue
Helena, Montana 59604

Dear Mr. Peterson:

Thank you for the opportunity to comment on your plans to improve Highway 278 in the vicinity of Carroll Hill.

There are two proposals along the segment of the road you plan to work on. One proposal is from the local snowmobile club; club members would like to see a parking lot developed for people who use the snowmobile trails in the area. The suggested site for developing the parking area is approximately .7 mile east of the Big Hole Pass. The proposed site is on a segment of the old abandoned road to the north of the highway. The legal location is in the south half of section of 8, T6S, R13W where the abandoned road joins the existing highway.

The other proposal is to install a Visitor Information Sign at Big Hole Pass. The sign describes the return trip of Captain Clark of the Lewis and Clark Expedition in July of 1805.

Our wildlife biologist reviewed your proposal and has no major concerns at this time.

I would like to meet with you during your next trip to the project area.

Sincerely,

WILLIAM B. HICKS
Dillon District Ranger

2029.082 048 Q

**Montana Department
of
Fish, Wildlife & Parks**

1420 East Sixth Avenue
Helena, Montana 59620

RECEIVED
NOV 01 1994
MORRISON—MAIERLE/CSSA, INC

October 27, 1994

Brad Peterson/PE
Morrison Maierle/CSSA
P.O. Box 6147
Helena, MT 59604

RE: Carroll Hill - East & West, RS 278-1(9)30, Control 2580

Dear Mr. Peterson:

We have reviewed your above-mentioned proposed project for Carroll Hill, (east and west).

The Department of Fish, Wildlife and Parks knows of no Section 6(f) of the Land and Water Conservation Fund Act or Section 4(f) of the 1966 Department of Transportation Act impacts which would occur as a result of the proposed improvement to a 5.4 mile long section of federal aid secondary highway 278 between Dillon and the Jackson/Wisdom area.

Thank you for the opportunity to comment. We appreciate your cooperation.

Sincerely,

Mary Ellen McDonald

MARY ELLEN McDONALD
Program Officer
Operations Bureau
Parks Division

c: R-3 Regional Supervisor

jg

State Historic Preservation Office
Montana Historical Society
1410 8th Avenue • PO Box 201202 • Helena, MT 59620-1202 • (406) 444-7715 • FAX (406) 444-6575

MASTER FILE COPY

RECEIVED
MAR 07 1995

February 28, 1995

Jon Axline, Historian
Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001

Re: STPS 278-1(9)30
Carroll Hill - East & West
Control No. 2580 (BE Co)

Dear Jon:

We have received the above referenced determination of effect. We **Concur** that the project would have **No Effect** on site 24BE1718, the Carroll Ranch. **Thank You** for the additional work that you did to determine the presence of old road segments in proximity to the Carroll Ranch.

Sincerely,

Josef J. Warhank, Historian
Historical Survey Reviewer

File: Comp/ BE Co/ MDT/ 1994

United States Department of the Interior

FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
100 N PARK, SUITE 320
HELENA MT 59601

IN REPLY REFER TO:

M.44 MDOT (I)

February 28, 1995

RECEIVED
MAR 03 1995
MORRISON—MAIERLE/CSSA, INC.

Mr. Brad Peterson, Project Manager
Morrison-Maierle/CSSA
P.O. Box 6147
910 Helena Avenue
Helena, Montana 59604

Dear Mr. Peterson:

This is in response to your February 16 letter pertaining to the proposed Montana Department of Transportation project identified as Carroll Hill - East and West, RS 278-1(9)30, Control No. 2580. Your letter requested the Fish and Wildlife Service's (Service) concurrence with the determination in this project's Biological Resources Report (Report) that the proposed project would not affect Federally-listed threatened and endangered species.

The Service has reviewed the Report for this project and concurs with your determination that the proposed project will not affect the endangered bald eagle (Haliaeetus leucocephalus) or the endangered peregrine falcon (Falco peregrinus). In addition, the Service does not anticipate any incidental take of listed species as a result of the proposed project. Therefore, pursuant to §402.13(a) of the 50 CFR, formal consultation is not required. If, after public review and comment, the final project design is changed so as to have effects on threatened or endangered species other than those described in the Report, a revised Report will need to be prepared. The Service will then issue a letter of concurrence/non-concurrence on the revised Report.

We appreciate the efforts of Beaverhead County, the Department of Transportation and yourself to ensure the conservation of these threatened and endangered species as a part of your responsibilities under the Endangered Species Act, as amended.

Sincerely,

Kemper M. McMaster
Field Supervisor
Montana Field Office

SDJ/sdj

United States Department of Agriculture
Forest Service
Beaverhead National Forest
420 Barrett Street
Dillon, MT 59725-3572
406/683-3900

RECEIVED
JUN 19 1995
MORRISON—MAIERLE/CSSA, INC

File Code: 2070

Date: JUN 16 1995

Brad Peterson
Project Manager
Morrison Maierle Inc.
910 Helena Avenue
Helena, MT 59604

Dear Mr. Peterson:

This letter is regarding the proposed realignment and reconstruction on Carroll Hill, highway 278. I reviewed the draft Categorical Exclusion (May 5), and the botanical report from the Proposed Transportation Project FAS 278, Carroll Hill. A FWS category 2 plant species, _Penstemon lemhiensis_, occurs in several subpopulations along the existing alignment. As I understand, the alternative alignment has not been surveyed for this plant, but may be surveyed later this summer. I also understand that the current proposal would eliminate about half of the individuals in one or more of these subpopulations.

This species is imperiled because of rarity or because other factors demonstrably making it very vulnerable to extinction, according to the Montana Natural Heritage Program. Monitoring data in southwest Montana indicate that _P. lemhiensis_ is in a generally declining trend since the mid-1980's. The ecological status of the subpopulations along and adjacent to the existing right of way is unknown. Considering what is known, can a Categorical Exclusion address the effects on this plant?

Any effects on the status of this plant needs to be documented. Please consider an Environmental Assessment for this project.

Sincerely,

Dan Svoboda

DAN SVOBODA
Forest Ecologist

cc: Joel Marshik, MT Dept. of Transportation
    Kirk Eakin, MT Dept. of Transportation

2029.552 548 0114 F

United States Department of Agriculture
Forest Service
Beaverhead National Forest
Dillon R.D.
420 Barrett
Dillon, MT 59725
406/683-3900

File Code: 2730

Date: JUL 11 1995

RECEIVED
JUL 13 1995
MORRISON-MAIERLE/CSSA, INC

Brad Peterson, P.E.
Morrison Maierle, Inc.
P.O. Box 6147
Helena, MT 59604-6147

Dear Mr. Peterson:

Thank you for the opportunity to review the draft categorical exclusion for the Carroll Hill (Project No. STPS 278-1(9)(30) highway reconstruction project. In preparing my response, I have referred to the Memorandum of Understanding on Procedures related to State Highways Over National Forest Lands approved in 1978, and the Memorandum of Understanding Related to Forest Highways Over National Forest Lands between the Department of Transportation Federal Highway Administration and Forest Service, approved in 1981. I also reviewed the Biological Resources Report dated November 22, 1994.

I spoke with Joel Marshik about this project by telephone on June 21, 1995. I am concerned that the project as described by Joel is somewhat different than what is described in your draft Categorical Exclusion and attached translite. I will respond here to the document and plan you supplied. If there are changes, please let me know.

I agree that it seems reasonable to try to prepare a single environmental document for this project. However, I do not think this proposal can be categorically excluded from documentation in an environmental assessment or impact statement.

A project may be categorically excluded under Forest Service regulations only if it falls within one of several specific categories described in the Federal Register, Vol. 57, No. 182, pp. 43208-10 (9/18/92), and there are no extraordinary circumstances related to the proposed action. From the scoping and analysis at hand, the proposed action does not fit a described category, and there are extraordinary circumstances.

Extraordinary circumstances include, but are not limited to: steep slopes or highly erosive soils, threatened or endangered species or their critical habitat, flood plains, wetlands, or municipal watersheds, designated Wilderness, wilderness study areas, inventoried roadless areas, Research Natural Areas, Native American religious or cultural sites, historic or archaeological sites. From the scoping and analysis at hand, it seems some of these circumstances exist in the proposed action, on National Forest land.

I have several specific concerns:

1. The Department of Transportation Easement for the existing highway is not adequate for the proposed project. According to the draft document you provided, the new alignment will require a change in the present easement, adding approximately 10 acres on National Forest land.

   The new easement must be initiated by the State with a letter to the Division Federal Highway Administrator requesting appropriation and transfer of the rights-of-way as soon as the construction plans are approved according to conditions of the Memorandum of Understanding on Procedures Related to State Highways over National Forest System Lands.

2. A population of Penstemon lemhiensis, listed as a sensitive plant by the Forest Service, will be affected by the project. According to Forest Service manual direction, sensitive species must receive special management emphasis. We need an analysis of the significance of adverse impacts on the population, habitat, and viability of the species as a whole. A biological evaluation (see attached guidelines) conducted by journey or higher level biologist or botanist is needed.

3. The importance of the area as a wildlife corridor is not discussed in the draft document. Right-of-way fences may pose a hazard to wildlife crossing. The Forest Service has fence specifications for wire spacing to reduce the possibility of entanglement. Also, wildlife crossing the highway pose a hazard to motorists, so we want to ensure there is adequate signing.

4. As noted in the draft document, other rights-of-way (buried telephone, overhead power lines) may be affected. Where these facilities are on National Forest lands, an amendment to their respective Special Use authorizations may be necessary. More information about the location and possible conflict between the proposed highway and these facilities is needed.

4. More specific information is needed regarding the effects of the proposed action and mitigation on wetlands.

5. The question of steep slopes and unstable soils is not addressed in the draft document. More specific information is needed.

When I spoke with Joel Marshik, I agreed it is desirable for the State to be the lead agency in the environmental analysis for this project. I would like Katie Bump to continue to be your contact person on Dillon Ranger District. If you need additional information, please contact her at (406) 683-3955.

Sincerely,

WILLIAM B. HICKS
District Ranger

cc: S.O.(Engineering/Lands)
Joel Marshik

2029.032 048 0174 Q

RECEIVED
JUL 17 1995
MORRISON-MAIERLE/CSSA, INC

HAMILTON RANCHES

Allan J. Hamilton
300 Park Blvd. S-100
Itasca, IL 60143

Telephone 708/250-4875
Fax 708/250-8521

July 11, 1995

Mr. Brad Peterson
Project Manager
Morrison-Maierle, Inc.
Box 6147
Helena, MT 59604

RE: Carroll Hill - East and West, RS 278-1(9)30

Dear Mr. Peterson:

Thank you for the notice of the public scoping meeting to discuss a proposed transportation project. I will not be able to attend the meeting, but I would appreciate receiving a copy of the plan showing a view of the proposed improvements. Thank you for your help in this matter.

Yours very truly,

Allan J. Hamilton

AJH/sv

MARCH 3, 1849

United States Department of the Interior

FISH AND WILDLIFE SERVICE

ECOLGICAL SERVICES
100 N PARK, SUITE 320
HELENA MT 59601

RECEIVED
FEB 6 1997
MORRISON-MAIERLE/CSSA, INC

File: M.44 Montana Department of Highways

February 4, 1997

Brad Petersen, P.E.
Morrison Maierle, Inc.
910 Helena Avenue
P.O. Box 6147
Helena, Montana 59604

Dear Mr. Petersen:

This is in response to your December 30, 1996, and January 31 letters requesting that the Fish and Wildlife Service (Service) review the biological evaluation of the Carroll Hill Project ((STPS-278-1(9) 30)), proposed by Montana Department of Transportation. The biological evaluation pertained to the project's effects on Federally listed threatened and endangered species and species of concern on the Dillon Ranger District of the Beaverhead National Forest. You indicated that in February 1995, the Service concurred with the effects determinations for the bald eagle and peregrine falcon documented in your February 1995 Biological Resource Report. Furthermore, in your more recent January 24, 1997 biological evaluation of the project, you determined that the project would not likely jeopardize the continued existence of gray wolves.

The Service has reviewed the January 24 biological evaluation and again concurs with the no effect determinations for threatened bald eagle (*Haliaeetus leucocephalus*) and endangered peregrine falcon (*Falco peregrinus anatum*). The Service also concurs that the project would not likely jeopardize the non-essential experimental gray wolf (*Canis lupus*). In addition, the Service does not anticipate any incidental take of listed species as a result of the proposed project. Therefore, pursuant to S402.13 (a) of the 50 CFR, formal consultation is not required.

The Service bases its concurrence on the information and determinations presented in the biological evaluation and Biological Resource Report prepared by Morrison Maierle. We appreciate your efforts to ensure the conservation of threatened and endangered species as part of our joint responsibilities under the Endangered Species Act, as amended.

Sincerely,

Kemper M. McMaster
Field Supervisor
Montana Field Office

AMV/amv

APPENDIX C - PUBLIC SCOPING MEETING SUMMARY

SUMMARY OF A PUBLIC SCOPING MEETING HELD ON 13 JULY 1995 CARROLL HILL - EAST AND WEST, STPS 278-1(9)30

A public scoping meeting was held for the proposed Carroll Hill - East and West highway improvement project on 13 July 1995 in the Jackson Elementary School in Jackson, Beaverhead County, Montana at 7:00 p.m. Attachment A includes a list of individuals who attended the meeting.

A notice of the meeting (see Attachment B) was published in newspapers as follows:

- In the Montana Standard, Butte, Montana, on 02 and 09 July 1995.
- In the Tribune-Examiner, Dillon, Montana, on 28 June and 05 July 1995.

Copies of the meeting notice were mailed to adjacent landowners and others who had previously expressed an interest in the proposed project. The notice was also sent to local, state and federal agencies that are known to have an interested in the project or the project environment.

The following informational handouts were available at the meeting:

- A document titled "Public Scoping Meeting Information". This report summarizes the proposed action and lists potential impacts. It is included with this summary as Attachment C.
- A 24" X 36" aerial photograph of the project area showing the beginning and ending points and proposed alignment.
- A form for submitting written comments or suggestions, Attachment D.

Brad Peterson conducted the meeting and explained important aspects of the project, as outlined in Attachment C.

The meeting was then opened for public comment, as summarized in following paragraphs:

Comment: Several people wanted to know when the project is scheduled for construction.

Response: The project is tentatively scheduled for construction beginning in 1998.

Comment: Where will the money come from?

Response: Funding will be from Beaverhead County's allocation of Secondary Funds which are state and federal funds.

Comment: Several individuals commented that the roadway should be constructed as soon as possible. Others indicated that the county should consider using the Secondary funds for other sections of Highway 278 because they felt there was more of a need elsewhere.

Response: This project has been selected and designated by the Beaverhead County Commission for construction because of high accident rates. There have been several accidents involving fatalities and serious injuries on this section of highway during recent years.

Comment: Guardrail should be placed on the higher fill slopes at the top of Big Hole Pass.

Response: Guardrail is a maintenance problem, especially during the winter, and can also be a safety problem if placed where it is not warranted. The project is being designed so that guardrail will not be needed. This will include the construction of a 5 meter wide area with 10:1 slopes adjacent to the driving lanes which exceeds clear zone requirements for a highway of this type.

Response: Harry Tash discussed several areas adjacent to his land where he would like cross-drains revised to better serve his irrigation system. These were marked on the project plans and, where appropriate, will be incorporated in project design. Coordination will occur with Mr. Tash and other land owners along the project to help make sure their needs are meet and that the highway coordinates as well as possible with adjacent lands.

Comment: Chain-up/chain-removal areas are needed on each side of the pass.

Response: These are planned.

Comment: What are the plans for accommodating snowmobilers.

Response: A snowmobile parking/unloading area will be provide at the top of Big Hole Pass on the existing roadway that will be abandoned when the new roadway is constructed.

Comment: Care should be taken during design, to ensure that drifting snow is minimized as much as practical.

Response: The project is being designed to avoid north facing slopes as much as possible, to provide flat cut slopes and to construct the highway in directions and elevations that will tend to make snow blow across the highway rather than drifting on the highway. Individuals familiar with the project design and snow drifting tendencies and conditions in the area generally concur that the proposed design does this to the extent practical.

Comment: There are irrigation facilities on the west end and the east end of the project. How will these be accommodated?

Response: Where irrigation pipe culverts cross the highway they will generally be replaced with culverts of the same size and at the same location. If larger pipes are needed, these can generally be provided with the new highway construction.

Comment: The existing horizontal "S" curves on the steep grades near the top of Big Hole Pass are very difficult for trucks to negotiate during the winter on slick roads. Because of the 6 to 8% superelevation, trucks climbing the hill slide off the highway easily when they lose traction.

Response: The new design will provide horizontal curves that are much flatter and require only 3 to 4% superelevation.

Written comments received are included in Attachment E.

ATTACHMENT A - PUBLIC SCOPING MEETING ATTENDANCE, 13 JULY 1995
CARROLL HILL - EAST AND WEST, STPS 278-1(9)30

Members of the public:

Harry Tash
DL Ranch
Polaris, MT 59746

Monte Clemow
Box 34
Wisdom, MT 59761

James O. Weiss
Box 62
Wisdom, MT 59761

Rob Clemow
Box 34
Wisdom, Mt 59761

Jay Nelson
Box 847
Jackson, MT 59736

Mike Paddock
Box 26
Wisdom, MT 59761

Jim Stone
Box 26
Jackson, MT 59736

Harold Peterson
Wisdom, MT 59761

Margie Peterson
Wisdom, MT 59761

Bob Allen
Box 93
Wisdom, MT 59761

Bob Nelson
Box 847
Jackson, MT 59736

Jim Boetticher
Box 803
Jackson, MT 59736

Project representatives:

Garth Haugland
Beaverhead County Commissioner
4375 Highway 41
Dillon, MT 59725

Richard Miller
Beaverhead County Road Manager
2 South Pacific Avenue
Dillon, MT 59725

Fred Bente
Montana Department of Transportation
Box 201001
Helena, MT 59620

Loran Frazier
Montana Department of Transportation
Box 3068
Butte, MT 59702-3068

Brad Peterson
Morrison-Maierle, Inc.
Box 6147
Helena, MT 59601

Ken Lode
Morrison-Maierle, Inc.
Box 6147
Helena, MT 59601

ATTACHMENT B

NOTICE OF PUBLIC SCOPING MEETING

Proposed Transportation Project
Carroll Hill - East and West. RS 278-1(9)30

This notice is to advise the public that a public scoping meeting will be held to discuss the proposed transportation project, described in following paragraphs, on 13 July 1995 beginning at 7:00 p.m. at Jackson Elementary School in Jackson, Montana.

Beaverhead County, in cooperation with the Montana Department of Transportation, intends to plan and develop a project to improve a 5.4 mile long section of Federal Aid Secondary Highway 278 between Dillon and the Jackson/Wisdom area. The proposed project begins near the Circle S Ranch entrance road at approximately Milepost 29.5 and extends west over Big Hole Pass to approximately Milepost 34.9.

The proposed project is intended to improve safety and driving convenience on the existing highway by improving the existing alignment over the pass; providing a more stable, wider pavement; and providing flatter and more uniform excavation and embankment slopes. The project may also include the construction of chain-up areas and scenic turnouts.

Opinions, suggestions and comments regarding environmental matters, highway safety and convenience, social and economic impacts, potential problems, potential benefits or any other subjects related to the proposed improvements will be very much appreciated and will be welcome at the public scoping meeting or can be sent to:

Brad Peterson, Project Manager
Morrison-Maierle, Inc.
Box 6147
Helena, MT 59604

The above address should also be contacted for more information or to make arrangements for those who require accommodations for disabilities.

ATTACHMENT C

PUBLIC SCOPING MEETING INFORMATION, 13 JULY 1995
CARROLL HILL - EAST & WEST, STPS 278-1(9)30
JACKSON ELEMENTARY SCHOOL, JACKSON, MT

The proposed project will include the reconstruction of an 8.7 kilometer (5.4 mile) long section of Federal Aid Secondary Highway 278 in Beaverhead County between Dillon and the Jackson/Wisdom area. As shown on the project location map on the following page and on the attached aerial photo ("translite"), the proposed project begins near the Circle S Ranch entrance road at approximately Milepost 29.5 and extends west over Big Hole Pass to approximately Milepost 34.9. The proposed project will closely follow the existing alignment.

The proposed project is intended to improve safety and driving convenience on the existing highway by improving the existing alignment over the pass; providing a more stable, wider pavement; and providing flatter and more uniform excavation and embankment slopes. The project may also include the construction of chain-up areas, snowmobile parking areas and crossings and scenic turnouts.

The proposed project has been evaluated for, and should have no adverse effect on the following environmental areas of concern:

Stormwater runoff
Prime and Unique Farmlands
Floodplains (E.O. 11988/FEMA)
Hazardous Waste
Changes in Land Use
NL&WCF - 6(f) Act
Noise
Section 404 - Clean Water Act
Social and Economics
Stream Preservation/Water Quality
Threatened/Endangered Species
USDOT - 4(f) Act

The proposed project will have minor effects on the following environmental areas:

Historical/Cultural Resources

A cultural resources inventory and assessment[1] has been completed for the referenced project. It has been determined, by the Montana Department of Transportation with the concurrence of the Montana State Historic Preservation Office, that site 24BE1718, Carroll Ranch, is eligible for the National Register of Historic Places. The proposed roadway in this area will remain at approximately the same horizontal and vertical alignment as the existing roadway and will receive wider fill slopes. It has been determined, by the Montana Department of Transportation with the concurrence of the Montana State Historic Preservation Office, that the proposed project will have no adverse effect on this site.

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[1] GCM Services, Inc., Cultural Resources Inventory and Assessment: Carroll Hill East and West, RS 278-1(9)30, October 1994.

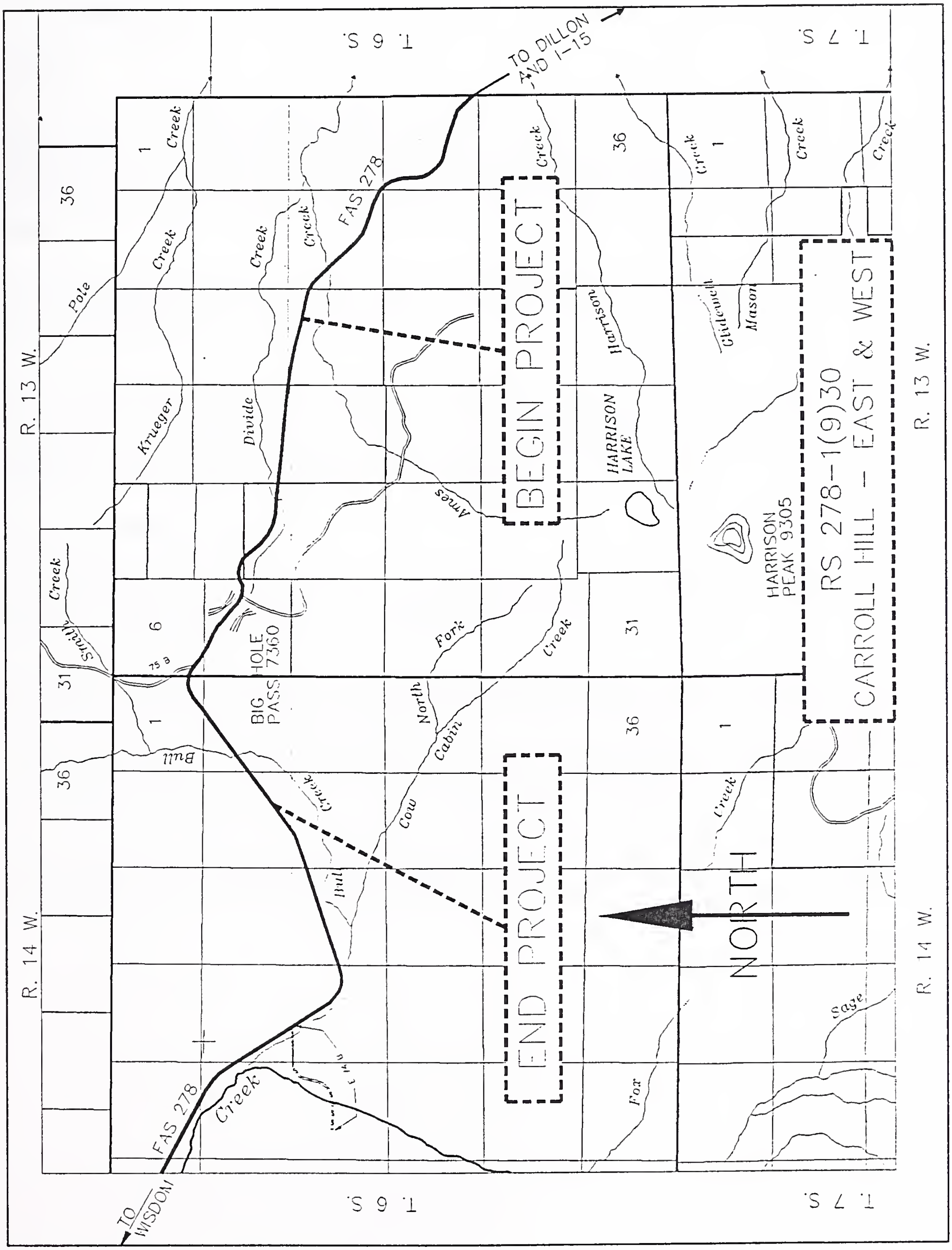

Figure 1, Project Location Map

ATTACHMENT C

Wetlands

The proposed project will fill approximately 0.3 acres of existing wetlands. All of these wetlands are adjacent to the toe of the existing highway fill slope and were created when the existing highway was constructed. When the highway is reconstructed, the wetlands impacted will be moved to outside the toe of the new slope -- opportunities will be provided for the replacement wetlands to be better than existing wetlands.

The most substantial wetland in this area (No. 4 near Milepost 32) will be undisturbed and the roadway will move approximately 20 meters farther away from it. Opportunities will therefore be provided to enhance and enlarge this wetland.

Between approximate Mileposts 31.0 and 31.8 the roadway will move farther away from the wetlands at the toe of the existing fill slope -- opportunities will be created to reduce or eliminate existing potential for highway related contamination (sedimentation, potential hazardous spills and other highway related contaminates) and to substantially enhance these wetlands.

Threatened/Endangered Species

The U.S. Department of the Interior's Fish & Wildlife Service (USFWS) has been contacted on several occasions[2] for identifying federally-listed threatened/endangered species under Section 7(a) of the Endangered Species Act (16 U.S.C. 1531 - 1543).

Bald eagles may occur as transients in the immediate project vicinity during the non-breeding season. The nearest active nesting pair is on USFS land several miles from the project area between Jackson and Wisdom in conjunction with the Big Hole River. Nesting sites are commonly located in large trees along a large body of water or river, basic ingredients not found in the project area. It has been determined that the proposed project will have no effect on the bald eagle or its habitat.[3]

Although transient peregrine falcons have been sighted in this area, nesting sites and preferred food base are not present and no confirmed breeding has been recorded in the project area. It has been determined that the proposed project will have no effect on the peregrine falcon or its habitat.[3]

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[2] Notice of Intent dated 03 August 1994, personal communications and letter dated 16 February 1995 transmitting a copy of the project's Biological Resources Report.

[3] Morrison-Maierle Environmental Corporation, Biological Resources Report, Carroll Hill - East and West, RS 278-1(9)30, 22 November 1994. Concurrence of U.S. Fish and Wildlife Service received in a letter dated 28 February 1995 from Kemper McMaster, Field Supervisor, Montana Field Office.

ATTACHMENT C

Sensitive Plant Species

A reconnaissance survey of special status plant populations within the project areas has been completed[4]. One sensitive plant species was located -- a population of Lemhi beardstongue (Penstemon lemhiensis) was located consisting of 26 plants dispersed across the south 1/2 of Section 8, T 6S, R13W on both sides of the existing highway.

The proposed highway reconstruction project in this area will include realignment to improve existing horizontal curves and flatter embankment slopes to improve safety. These improvements will cause the obliteration of some of the identified Lemhi beardstongue plants.

Waste Management

Existing asphalt pavement will be pulverized and reused for the construction of the proposed new project or will be placed in new highway embankments substantially below the surface. Other requirements and suggestions provided by the Montana Department of Health and Environmental Sciences[5] will be adhered to during construction.

Permits Required

The following permits will be acquired prior to any relevant disturbance:

> This proposed project will be in compliance with both the Montana Water Quality Act for Section 3(a) authorizations and the Montana Stream Preservation Act (MCA 87-5-501 through 509, inclusive).
>
> A 124SPA Stream Protection Act Permit will be required by the Montana Department of Fish, Wildlife and Parks.
>
> All work will also be in accordance with Section 319 of the Water Quality Act of 1987 (P.L. 100-4).
>
> This proposed project will require a Clean Water Act (33 U.S.C. 1251-1376) - Section 402/Montana Pollutant Discharge Elimination System permit from the Water Quality Bureau of the Montana Department of Health and Environmental Sciences.
>
> A Clean Water Act (33 U.S.C. 1251-1376) - Section 404 permit from the U.S. Army Corps of Engineers (COE) will be required. The COE will determine if this proposed project qualifies for a "Nationwide" or an "Individual" 404 permit under the provisions of 33 CFR 330.

An erosion control plan will be submitted to the Water Quality Bureau of the Montana Department of Health and Environmental Sciences in compliance with the Montana Pollutant Discharge Elimination System Regulations (ARM 16.20.1314) for this proposed project. Best management practices will be

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[4] Lisa Schassberger Roe, Botanical Report for TES Plants, Proposed Transportation Project FAS 278, Carroll Hill - East and West, RS 278-1(9)30, 13 September 1994.

[5] Lara M. Dando, Solid and Hazardous Waste Specialist, Solid Waste Program, Waste Management Division, Montana Department of Health and Environmental Sciences, letter dated 09 August 1994.

used in the design of this plan using guidelines as established in MDT's Highway Construction Standard Erosion Control Workplan. The objective is to minimize erosion of disturbed areas during and following construction.

In accordance with M.C.A. 7-22-2152 and 60-2-208, a permanent desirable vegetation community will be established along all areas disturbed by the proposed construction. A set of revegetation guidelines (seeding special provisions) will be developed that must be followed by the contractor. The seeding special provisions will include instructions on seeding methods, seeding dates, types and amounts of mulch and fertilizer and seed mix components. Seed mixes will include a variety of species to ensure that areas disturbed by construction are immediately stabilized by vegetative cover. The seeding special provisions developed for this proposed project will be forwarded to the County Weed Control Board for approval.

Air Quality

This proposed project is located in an "unclassifiable"/attainment area of Montana for air quality under 40 CFR 81.327, as amended. As such, this proposed project is not covered under the U.S. Environmental Protection Agency's Final Rule of November 24, 1993 on Air Quality conformity. Therefore, this proposed project complies with Section 176(c) of the Clean Air Act as amended (42 U.S.C. 7521(a)).

Right-of-Way and Utilities

There are approximately 50 hectares (124 acres) of existing right-of-way for the highway.

Approximately 16 hectares (40 acres) of new right-of-way will be needed for this proposed project. Of this new amount, approximately 4 hectares (10 acres) will be required on land controlled by the U.S. Forest Service.

An underground telephone line lies adjacent to and parallel with much of the proposed project -- relocation may be required in some areas.

Overhead power lines also exist in the project area and cross the highway several times. Minor adjustments may be required.

ATTACHMENT D

PUBLIC SCOPING MEETING, 13 JULY 1995

STPS 278-1(9)30, CARROLL HILL EAST & WEST
BEAVERHEAD COUNTY, MONTANA

Please write your comments or suggestions below concerning the proposed project. Your comments will provide valuable input for the determination of environmental impacts and for development of design features. Comments can be left at the meeting or can be mailed to:

Brad Peterson, Project Manager
Morrison-Maierle, Inc.
Box 6147
Helena, MT 59604
Telephone: (406) 442-3050

We would appreciate receiving your comments by 14 August 1995.

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(Please place additional comments on reverse side)

Please indicate your name, address and affiliation on the lines below. Thank you for your interest in this project.

Name and Address: ____

____

____

____

Attachment E, Written Comments Received

RECEIVED
JUL 17 1995
MORRISON—MAIERLE/CSSA, INC

HAMILTON RANCHES

Allan J. Hamilton

300 Park Blvd. S-100
Itasca, IL 60143

Telephone 708/250-4875
Fax 708/250-8521

July 11, 1995

Mr. Brad Peterson
Project Manager
Morrison-Maierle, Inc.
Box 6147
Helena, MT 59604

RE: Carroll Hill - East and West, RS 278-1(9)30

Dear Mr. Peterson:

Thank you for the notice of the public scoping meeting to discuss a proposed transportation project. I will not be able to attend the meeting, but I would appreciate receiving a copy of the plan showing a view of the proposed improvements. Thank you for your help in this matter.

Yours very truly,

Allan

Allan J. Hamilton

AJH/sv

STATE	PROJECT NUMBER	SHEET No
MONT.	STPS 278-1(13)30	1 OF 1

CARROLL HILL - EAST & WEST

BEAVERHEAD COUNTY

LENGTH 4.9 MILES
7.8 KILOMETERS

SCALE: 1:6000